HOSPITAL ABSTRACTS

A MONTHLY SURVEY OF WORLD LITERATURE

PREPARED BY THE DEPARTMENT OF HEALTH

AND SOCIAL SECURITY

VOLUME 15, NO. 8, ABSTRACTS 1064-1222. AUGUST 1975

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HOSPITAL ABSTRACTS

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HOSPITALS IN GENERAL

1064. Cox, C. and Mead, A., editors. **A sociology of medical practice.** London, Collier-Macmillan, 1975, x, 318pp. £5.50.

This volume brings together a number of papers which exemplify various sociological approaches to problems in the health field. An introduction provides a general framework and introduces the reader to some of the basic sociological approaches and concepts. The 18 papers are in four sections: (i) the sociology of illness and illness behaviour; (ii) the sociology of the healing professions; (iii) the sociology of the health service organizations; and (iv) the sociology of the doctor/patient relationship.

HOSPITALS IN GREAT BRITAIN

1065. Wellmann, F. and Palmer, P. **The London specialist postgraduate hospitals—a review and commentary on their future.** London, King Edward's Hospital Fund for London, 1975, 103pp. £3.20.

This report is concerned with the effects of reorganization of the National Health Service (NHS) on the postgraduate teaching hospitals in London. It was commissioned by the Teaching Hospitals Association and financially supported by King Edward's Hospital Fund for London. The first of the two parts into which the report is divided is concerned with the past and present and deals with: postgraduate specialization; functions and services; staffing; financing; NHS reorganization; and the report of the Royal Commission on Medical Education of 1968. The second part is concerned with the future and covers: aims of the NHS; objectives of the postgraduate hospitals; organization and finance; and alternative administrative arrangements. There are brief notes on the individual hospitals and institutes. A number of recommendations are made on the future of the hospitals.

PLANNING, DESIGN AND CONSTRUCTION

See also Abstract Nos. 1069-1071

1066. International Hospital Federation, World Health Organization and International Union of Architects. **Special issue on—"Planning and building health care facilities under conditions of limited resources".** *World Hospitals*, London, 1975, vol. 11, nos. 2/3, pp. 51-224.

This special issue contains the 40 papers given at the Fifth International Public Health Seminar organized in Nairobi from 17 to 24 November 1974 by the three sponsoring bodies. The papers are arranged so as to lead from general observations on regional planning, planning of individual facilities, and medical, nursing and economic

aspects right through to proposals, solutions and practical details. Numerous plans, diagrams and photographs are included.

DETERMINING SIZE OF HOSPITAL AND BED NEEDS

1067. PULLEY, J. L. and FULMER, J. G. **The optimal size hospital.** *Hospital Administration*, Chicago, 1975, vol. 20, no. 2, pp. 16-29.

The primary purpose of this study is to investigate returns to scale in the production of hospital services. The objective is to measure the effect of bed size on the operating expenses of hospitals, but many other factors affect these expenses. The primary sources of variation in long-run hospital costs, other than size, can be categorized into four main groups: (i) range and scope of services; (ii) training and research activities; (iii) variations in prices paid for factors of production; and (iv) differences in efficiency with which hospitals operate. Using regression analysis, these four factors are held constant and the relationship between size and average cost is isolated. The results indicate that on 1971 figures the optimal size is 279 beds. Hospitals designed to operate bed sizes greater than 350 incur decreasing returns to scale and therefore should be avoided; likewise hospitals below 200 beds incur increasing returns and should be increased in size. On 1972 figures, the optimal bed size is 346 beds and hospitals with more than 425 or less than 250 beds should be avoided.

BUILDING: TENDERING, ETC.

See Abstract No. 1086

CONSTRUCTION METHODS AND BUILDING MATERIALS

1068. SCHMIDT, W. A. **The VA hospital building system.** *Heating/Piping/Air Conditioning*, Westwood, N.J., 1975, March, vol. 47, no. 3, pp. 49-55.

The Veterans Administration with some 172 hospitals is the owner and operator of the largest hospital system in the United States. A research project was undertaken to develop a national building system and this is described with particular reference to the 500-bed hospital at Loma Linda, Calif., which is now under construction. The basic element is a set of planning modules ranging from 5,000 to 20,000 sq. feet containing the occupied space (functional zone), the mechanical and electrical and equipment rooms (the service bay) and the interstitial ceiling space (the service zone). A set of rules governs the application of selected structural, ceiling, partition, HVAC equipment, plumbing and electrical distribution subsystems having permanent or adaptable components. The Loma Linda hospital is an assembly of 35 planning modules, 11 for the lower floor and eight for each of the three upper floors: each module is serviced from its own mechanical and electrical rooms in an adjacent service bay. Every two modules comprise a fire section for safety purposes. Details are given of the arrangements for services and for emergency systems.

HOSPITAL DESIGN

See also Abstract No. 1066

1069. GREEN, J. R. B. **Health service facilities planning and design: a guidebook.** (Australian Studies in Health Service Administration, Nos. 24 and 25). Kensington, N.S.W., School of Health Administration, University of New South Wales, 1974, [v], 35, [v], 128pp. $6.00.

This publication has been produced in response to requests for a concise handbook on health service building, planning and design. The first part deals with the subject generally in the order in which a planning team might tackle a major project. The second part deals with planning for eight particular functions: nursing care, maternity and child care, extended care, diagnosis and treatment, consultative and emergency services, administration and staff facilities, supply services and works services. Numerous diagrams and plans are included.

1070. JOEDICKE, J. and MAYER, W. Planung von Gesundheitszentren. **[Health centre planning.]** *Architekt*, Essen, 1974, May, vol. 23, no. 5, pp. A252-A256.

The concept of the 'integrated health centre' is discussed with particular reference to the new hospital which is being planned for Nuremberg. There are four elements to such a centre: (i) the in-patient area with flexible ward units on the progressive patient care principle including hostels for minimum care patients and day or night hospitals where appropriate; (ii) the diagnostic and treatment area, serving in- and out-patients as well as general practitioners and group practices housed within or near to the hospital; (iii) medical practices and group practices; and (iv) the central information system providing administrative and electronic data processing services for the whole centre (although each of the main elements will also require its own subordinated administrative arrangements). The various alternatives of such an integrated scheme for the Nuremberg hospital are being evaluated by a planning group.

1071. GHOSH, S. K. and HANDA, V. K. **Computer-aided planning and design of hospitals: the state of the art.** *Hospital Engineering*, Stevenage, 1975, May, vol. 29, no. 14, pp. 9-17.

Computer-aided planning and design permits the study of design possibilities without paying the price of erroneous decisions in the actual situation. This paper reviews the four major stages of computer-aided planning and design of hospitals: regional planning, institutional planning, functional design and engineering design. It is pointed out that spatial layout or functional design is perhaps the most important aspect of the planning and design of hospitals. The commerce subsystem, which handles all movements within a hospital, holds the key to efficient functional design.

DESIGN OF INDIVIDUAL GENERAL HOSPITALS

1072. Ospedale civile di Giulianova. **[Giulianova Civil Hospital.]** *Architettura*, Milano, 1974, May, vol. 20, no. 1, pp. 22-25.

This hospital in a small town in the Abruzzi was originally designed with 120 beds;

during the construction stage additional funds became available enabling the capacity to be increased to 300 beds. One of the original architects was given the task of redesigning the hospital, which was difficult because the larger dimensions altered the layout and the way in which the building fitted into the landscape. The solution was to bring the various 'pieces' back together by some large-scale elements; continuous terraces with circular corner balconies; an overhanging top floor, and cantilever roofs on the service floor. Plans of the ground, first, fourth and fifth floors, two elevations and four photographs are included. [This abstract has been prepared from an English summary of the paper.]

1073. **Jichi Medical College, Phase-2 construction: hospital main building, women's dormitories, faculty housing.** *Japan Architect*, Tokyo, 1974, Aug., vol. 49, no. 8, pp. 57-66.

The second stage of Jichi Medical College (architect: Nikken Sekkei) comprises the main hospital building, quarters for 346 nurses and 108 student nurses and 210 houses for faculty staff. The hospital consists of an eight-storey cruciform tower enclosed by two- and three-storey buildings. Plans of the first and second floors and a standard floor of the tower, plans of the staff quarters and 27 photographs are included.

1074. **Kurashiki City Hospital.** *Japan Architect*, Tokyo, 1974, April, vol. 49, no. 4, pp. 71-76.

This five-storey, 200-bed hospital (architect: Shin'ichi Okada) is on an exceptionally beautiful site. Its design tries to overcome the usual sterotyped pattern of hospital rooms by offering patients better living spaces. One aspect of this is the interior decoration, which uses warm colour throughout the building. Plans of the site, first, second and fourth floors and 10 photographs are included.

1075. **Shimosa Hospital.** *Japan Architect*, Tokyo, 1974, Oct., vol. 49, no. 10, pp. 70-74.

This 20-bed, two-storey hospital (architects: Archibrain) is in a rapidly growing, but sanitarily backward district. Treatment is confined to paediatrics, internal medicine and dermatology. The design consists of six cylinder-like spaces lit from above by sky lights and connected by corridors to the exterior. Plans of both floors, a site plan, a section and eight photographs are included.

1076. **Tamano Civic Hospital.** *Japan Architect*, Tokyo, 1974, April, vol. 49, no. 4, pp. 63-70.

This six-storey, 200-bed hospital (architect: Shizutaro Urabe) serves a city of 70,000 people. On a small and poorly situated site, out-patient and treatment facilities occupy a large part of the space, leaving highly sophisticated treatment and procedures to more elaborately equipped hospitals nearby. Plans of each floor, two elevations and 20 photographs are included.

DESIGN OF SPECIAL DEPARTMENTS

1077. **Come clean.** *Architects' Journal*, London, 1975, June 11, vol. 161, no. 24, p. 1245.

A new central laundry at Eastbourne will serve 17 hospitals in parts of East Sussex

and Kent. It will eventually handle 4,650 pieces an hour with a staff of 60 compared with 94 in the four district laundries which it will replace. Soiled linen is separated into six different categories at collection points before being delivered to the laundry where it is channelled into three areas of input: personal wear, foul and infected linen, and general linen. The flow of linen through the laundry is illustrated in a diagram. The laundry, which was built in two years, cost £1½ million, approximately £½ million of which was spent on equipment. Four photographs are included.

1078. UNITED STATES. HEALTH CARE FACILITIES SERVICE. **Planning for hospital pharmacies.** (DHEW Publication No. (HRA) 74-4003) Washington, U.S. Government Printing Office, 1974, xiv, 125 pp. $1.55.

This manual presents guidelines for planning pharmacy facilities for acute general hospitals with 100, 300 and 500 beds. It covers: the planning process; location and space; drug distribution; manufacturing and packaging; drug information; teaching and research; administration; equipment planning; transport and communication; materials, utilities and environmental factors; and designing for growth. The volume includes plans and an extensive bibliography.

1079. **Special features for a special radiological procedures suite.** *Hospitals*, Chicago, 1975, April 16, vol. 49, no. 8, pp. 21-22, 24.

At Beth Israel Hospital, Boston, Mass., a unit containing a series of rooms for special X-ray procedures has been built within an existing shell space of 6,241 sq. feet. There are five special rooms, a patient preparation and recovery area, demonstration and viewing rooms, a processing area, an electronic workshop, doctors' rooms, and areas for clean-up, instrument preparation, storage and supplies. The open plan allows for supervision, teaching and the sharing of equipment. Large windows and glass doors allow group observation. The unit is sited one floor below the diagnostic X-ray department. Construction cost was $64.90 per sq. foot. The paper includes a floor plan and diagrams showing circulation routes.

DESIGN OF SPECIAL HOSPITALS OR UNITS

1080. ARNEILL, B. P. **Guidelines for design of facilities.** *Hospitals*, Chicago, 1975, April 16, vol. 49, no. 8, pp. 83-87.

When a new ambulatory care facility is being planned a full-time administrator should be appointed to supervise and co-ordinate the work. Professional advice on the design of programmes or buildings is essential. The most important aspect of the design of a good building is the attitude and understanding of the team responsible: this should consist of the administrator, a staff representative, a building committee representative, the architect and his consultants, and any other specialist consultant necessary. Recommendations are made on siting, planning for function, and scheduling of work.

1081. **North Tees General Hospital: Harness unit for the elderly.** *Hospital Development*, London, 1975, May/June, vol. 3, no. 3, pp. 10-12.

The geriatric unit at North Tees General Hospital has been built to test and evaluate the operational policies and use of the unit based on Harness principles and activity

data. The accommodation is planned to give a nursing management unit consisting of horizontally contiguous nursing sections through which it is possible to operate progressive patient care. The 124-bed ground floor unit is sub-divided into four intermediate and one high dependency nursing sections. The 72-bed first floor has two intermediate and one high dependency sections. Section boundaries are flexible to allow maximum use of beds. Most of the patients are in four-bed bays. There are administrative offices on both floors. Staff operate from a manned staff base which is linked to each individual bed with a nurse call system. The building is a two-storey steel-framed structure. There is a 1.4m. service void above ceiling level; this carries the distribution of electrical, mechanical, sanitary and gas services. The general environment is highly attractive to staff, patients and visitors. A plan of the ground floor and three photographs are included.

1082. 'Het Zonnehuis-Doorn' biedt door unieke ligging ideale behuizing aan 170 patiënten. **[Zonnehuis-Doorn offers unique ideal environment for 170 patients.]** *Technische Gids voor Ziekenhuis en Instelling*, Amsterdam, 1975, April 29, vol. 44, no. 1074, pp. 348-350.

In April 1975 a new nursing home was officially opened at Doorn. It is what is known as a 'combined nursing home' providing long-stay accommodation for 102 chronically sick (not necessarily elderly) patients in need of long-term medical, paramedical and/or nursing care as well as for 60 mentally disturbed elderly patients. The chronically sick patients are housed in three 34-bed wards with single, double and four-bed rooms. The mentally disturbed patients occupy four 15-bed wards, each with three single, two double and two four-bed rooms, a living/dining room, and a terrace. When the home is in full use there will be a staff of 170, 40 of whom can be accommodated in a staff residence. The aim has been to provide as home-like an environment as possible.

1083. **Chiba Prefectural Cancer Center.** *Japan Architect*, Tokyo, 1974, July, vol. 49, no. 7, pp. 17-27.

The seven-storey, 200-bed Chiba Cancer Center (architects: Yasumi Yoshitake, Ryoichi Ura, Norio Nishino and Makoto Ito) consists of a series of wings. Each department occupies one of these wings, which can be extended independently at each end. Each pair of wings is connected by an equipment corridor. Particular attention has been paid to the interior decoration. The paper includes a site plan, plans of the basement, ground and first to third floors and 16 photographs.

1084. **Design problems converted to advantages in mental health center.** *Hospitals*, Chicago, 1975, March 16, vol. 49, no. 6, pp. 27, 30.

The new $10 million eight-storey Greater Bridgeport (Conn.) Community Mental Health Center (architects: Fletcher-Thompson, Inc.) is built on a steeply sloping site adjacent to Bridgeport Hospital to which it is linked by a third-floor clear span bridge over a major street. The hospital provides the Centre with medical, surgical and laboratory services and food is provided for its cafeteria from the hospital kitchen. A ground level, two-storey parking structure also provides access to the rear of the centre, where the emergency and service entrances are situated. The sloping site has enabled entrances to the main hall to be provided at different levels for different uses, such as administration, admission, patient interview rooms, and the 184-seat auditorium.

Floors two to four are used respectively for children and family care; the cafeteria; and out-patient services; and the fifth to the eighth floors for in-patient care, each floor having rooms for one to four patients, small dining-room and group therapy, recreation and staff rooms. Movable partitions allow multiple use of rooms. The use of reinforced concrete frame and flat slab construction reduced the height of the centre, with resulting substantial cost reduction.

1085. **Yamabato Home for Mentally Retarded Adults.** *Japan Architect*, Tokyo, 1974, Aug., vol. 49, no. 8, pp. 17-24.

Under Japanese law, mentally handicapped persons over 18 years of age have to be cared for in separate facilities. This home (architect: Koji Kamiya) was built for such patients from the adjoining Yamaboto Institute. The building has a basement and three other floors and at present takes 30 patients. Particular attention has been paid to the safety of patients and their rooms are staggered to provide better observation from staff rooms. There are plans for a separate building where the less severely handicapped patients can live independently. Plans of the site and each floor, an elevation and 11 photographs are included.

ENGINEERING SERVICES

See also Abstract No. 1068

1086. CARTER, M. **Multi-service contract management of hospitals.** *Electrical Review*, London, 1975, May 23/30, vol. 196, no. 20, pp. 641-644.

In this paper an executive of an engineering firm describes how a large hospital contract is handled. First a resident project manager is appointed: he then appoints, from within the company, three project engineers (electrical, mechanical and plumbing) who control all aspects of their own services throughout. To complete the team a project surveyor and a planning engineer are required. A site office for control staff should conform to normal office standards. Proper control of the vast amount of paperwork includes bar charts, network analysis and adequate filing systems. Large items of plant should be ordered and delivered to site at an early stage to ease problems of access. Generally there should be monthly site meetings with architects, consultants and contractors. On completion the client expects a set of maintenance and operating instructions, drawings and manufacturers' literature covering all installations: the collection of this takes time and should be started early.

ELECTRICAL INSTALLATIONS AND EQUIPMENT

See Abstract No. 1129

COMMUNICATION SYSTEMS

1087. FREITAG, W. and DECHANDT, M. Rohrpostanlagen im modernen Krankenhaus. **[Pneumatic tube systems in the modern hospital.]** *Architekt*, Essen, 1974, May, vol. 23, no. 5, pp. A284-A286, A288.

The pneumatic tube installation at the 1,580-bed University Hospital Centre,

Marseilles, which has 20 floors including a 'technical floor' between the second and third storeys, is described and illustrated. Tubes are of 100 mm. diameter, those which are hidden (a total of 5,000 m.) being of polyvinyl chloride and the remainder (3,000 m.) of light metal. About 80 per cent of the tubes run along the technical floor or in vertical ducts: there are 13 circuits. The number of stations is 123 and there are two container stores each with a capacity of 140 containers. There are special safety containers for valuables and confidential reports: these have secret locks the numerical combinations for which are known only to the recipients. Details are given of the electronic control, sound insulation and other technical matters.

LIFTS AND ESCALATORS

1088. Sind Rolltreppen und Rollsteige für Krankenhäuser geeignet? **[Are escalators and travelators suitable for hospitals?]** *Architekt*, Essen, 1974, May, vol. 23, no. 5, pp. A294, A296.

Escalators and travelators have many advantages over lifts and stairs for both patients and staff in hospitals and similar institutions. This paper gives working drawings of installations for both means of transport together with detailed data of loads and performance. As far as Western Germany is concerned there is at present no body of experience of installations of this type in hospitals.

TRANSPORT IN GENERAL

1089. KAPPELER, D. P. Planung von Transportsystemen im Krankenhaus—Selbstzweck oder zwingende Notwendigkeit. **[Transport systems planning in the hospital—an end in itself or a compelling necessity.]** *Krankenhaus Umschau*, Kulmbach, 1975, April, vol. 44, no. 4, pp. 205-206, 211-212.

The materials distribution system and internal transport installation in a hospital is not something which can be planned in isolation: it has to be considered in relation to economic factors and in particular to possible reductions in labour requirements. Planning must begin at the earliest stage and the interdisciplinary planning team should include experts on transport technology, flow of materials, data technology, organization, and operational research as well as hygienists, doctors and architects. The planning stages (each of which is outlined) are: determining basic requirements; system finding; layout planning; and detail planning.

1090. LANGE, S. and STEINBÜCHEL-RHEINWALL, C. von. Grundlagen der Materiallagerung und der Materialverteilung im Krankenhaus. **[Principles of supplies storage and distribution in the hospital.]** *Krankenhaus*, Stuttgart, 1975, April, vol. 67, no. 4, pp. 131-141.

This is a detailed study of the interrelationship of a central storage department with an automated internal transport system for the distribution of clean goods and the collection of used materials. Ideally all deliveries to the hospital should arrive at one central point and be stored as necessary in a central store. Distribution of small items such as drugs and documents is better done by pneumatic tube. Other goods can be

distributed by a fully automated transport system. The various types of trolleys and containers required for different types of goods and the central control of movement are discussed. Attention is also paid to systems for requisitioning by wards and other departments. The paper includes a number of charts and diagrams to illustrate the organization and flow of transport systems.

VENTILATION AND AIR-CONDITIONING

1091. GÖBEL, K. Der Einfluss von Wandgewicht und Fensteröffnung auf das Raumklima von Krankenzimmern. **[The influence of wall density and window openings on the climate of patient rooms.]** *Architekt*, Essen, 1974, May, vol. 23, no. 5, pp. A268, A270, A272, A274.

While in-patients should not be subjected to extreme variations in temperature and humidity they do require slight changes to stimulate circulation. The necessary climate in patients' rooms can be maintained without the expense, and possible risks, of air-conditioning by the following measures: protection from extremes of temperature by sun blinds, by not having overlarge windows and by heat-insulating walls; adequate, easily regulated, heating in winter; substantial ceilings, and internal walls to resist temperature changes; controlled ventilation; reasonable heat insulation of windows and walls; and the use of building components which allow excessive moisture to pass outside (e.g. the capillary conductivity of bricks). The effects of the various measures are illustrated by graphs and diagrams.

MAINTENANCE OF BUILDINGS AND EQUIPMENT

1092. OTTO, C. C. **Factors in maintenance contracts.** *Hospitals*, Chicago, 1975, March 16, vol. 49, no. 6, pp. 139-140.

This paper considers the advantages and disadvantages of contracting out maintenance work. Evaluation of a hospital's maintenance needs and consideration of contracting out can be divided into four separate but related parts: (i) an inventory of existing in-house maintenance capabilities; (ii) consideration of the possibility of upgrading in-house facilities; (iii) evaluation of existing maintenance contracts; and (iv) exploration of potential contracts. The types of contract discussed include: full (all-inclusive), limited coverage, on-call and shared service. The systems and groups of systems most frequently served by maintenance contractors are listed.

SANITARY EQUIPMENT AND FITTINGS

1093. TODER, R. H. **Plumbing design for a hemodialysis suite.** *Building Systems Design*, New York, 1974, Oct./Nov., vol. 71, no. 6, pp. 29-32.

This paper specifies the plumbing requirements for a haemodialysis unit, with special reference to water treatment, piping systems and the haemodialysis system.

EQUIPMENT, FITTINGS, FURNITURE

FLOORS AND FLOOR COVERINGS

1094. SJUKVÅRDENS OCH SOCIALVÅRDENS PLANERINGS- OCH RATIONALISERINGSINSTITUT. Heltäckande textilmattor i vardbyggnader. **[Wall-to-wall carpeting in health buildings.]** (Spri råd 5.20) Stockholm, Spri, 1974, 26pp.

This advice note describes the type of floor areas for which wall-to-wall carpeting can be used as an alternative to other types of floor coverings and states which types of carpet, colour and structure should be selected. Hygienic, environmental, economic and qualitative aspects, as well as cleaning and maintenance, are dealt with in appendices. Spri has found that only carpets made completely of synthetic materials can satisfy the requirements of hospitals. Vacuum cleaning is the only suitable method of regular cleaning; for major cleaning shampooing is the normal method despite evidence of unsatisfactory results. Currently, the best results are produced by warm-water cleaning which has undergone intensive development in recent years. [This abstract was prepared from an English summary of the publication.]

BEDS, COTS, ETC.

1095. ADKINS, E. L. **All-in-one unit improves patient care in OB.** *Hospital Topics*, Neptune, N.J., 1975, March/April, vol. 53, no. 2, pp. 40-41.

An all-purpose bed has been developed for use in the maternity department at Bronson Methodist Hospital, Kalamazoo, Mich., which makes it possible for the patient to remain in the same bed during labour, delivery and post-partum care. The unit is 78 inches by 29 inches, has an easily removable breakaway section of 28½ inches, the height is adjustable between 31½ inches and 43½ inches, and Trendelenberg, reverse Trendelenberg and Fowler positions can be achieved. Conversion to a delivery table is by releasing a lever which allows the entire top surface to slide forward: legs are placed into stirrups and the breakaway section removed. After delivery the process is reversed. Patients have expressed their satisfaction with the bed and it is estimated that $1,000 a year is saved on laundry and $3,200 on domestic labour.

EQUIPMENT GENERALLY

1096. GREAT BRITAIN. DEPARTMENT OF HEALTH AND SOCIAL SECURITY, WELSH OFFICE and SCOTTISH HOME AND HEALTH DEPARTMENT. **Pharmaceutical department. June 1975.** (Health Equipment Note No. 29) London, Her Majesty's Stationery Office, 1975, 17pp. £0.48.

This Equipment Note lists equipment for the rooms and sections of pharmacies serving 300 to 550 beds, 551 to 1,000 beds and 1,001 to 1,200 beds. Guidance on costing is given in the lists, with a departmental cost summary as an appendix. A list of relevant British Standards is also included.

1097. GREAT BRITAIN. DEPARTMENT OF HEALTH AND SOCIAL SECURITY, WELSH OFFICE and SCOTTISH HOME AND HEALTH DEPARTMENT. **Diagnostic X-ray department. Revised edition.** (Health Equipment Note No. 6) London, Her Majesty's Stationery Office, 1975, 38pp. £0.75.

The Equipment Note lists, in room or space sequence, the equipment required by diagnostic X-ray departments varying in size from two to eight rooms and of varying design. Guidance on costing is given in the lists, with a department cost summary as an appendix. A list of relevant British Standards is also included.

STAFF GENERALLY

STAFF COMPLEMENTS

See Abstract No. 1211

RECRUITMENT

See also Abstract No. 1105

1098. RAPPAPORT, C. M. **Employment testing: apropos or no.** *Hospitals*, Chicago, 1975, March 16, vol. 49, no. 6, pp. 119-121.

The author outlines the general purposes and procedures of selective testing of applicants for employment and considers its applicability to hospital staff. A number of staff, such as nurses and technicians, are already professionally qualified. The suitability of using tests for clerical and administrative staff would depend on: (i) the size of the hospital; (ii) the number and types of vacancies to be filled; and (iii) the suitability of the personalities of the applicants in relation to the hospital staff with whom they would be in contact. With regard to (iii) the author emphasizes the importance of screening rather than general testing by a hospital employment interviewer with both a good practical knowledge of the hospital structure and conditions of work and a knowledge of the personalities and habits of, for example, the medical staff with whom a new secretary would be working.

STAFF MANAGEMENT

See also Abstract Nos. 1113, 1143, 1146

1099. TYCHE, A.-L. Är personalpool lösningen på alla våra vikarieproblem i sjukvården? **[The staff pool as a solution to deputizing problems in health care.]** *Sjukhuset*, Göteborg, 1975, vol. 52, no. 4, p. 239.

Pools of permanently employed hospital staff were set up by numbers of hospitals after the introduction of new regulations in July 1974 in order to provide staff to deputize in emergencies. Pool staff receive a fixed wage instead of the insecure and

widely varying income of 'temporary' staff. Long-term vacancies are still filled by advertising in the normal way. If the pool as originally recruited proves to be too large, it is reduced by allowing pool staff to transfer to holiday deputy or long-term deputy posts. Pool staff attitudes to the system are highly positive wherever it has been introduced, and it is therefore being extended. Many administrators feel that the pool should be centrally directed, but the author finds that this reduces flexibility with no compensating increase in economy or efficiency: pool staff should be employed for a fixed series of wards which they should come to regard as 'theirs'. Permanent staff must be encouraged to welcome and assist pool staff, who are their safety net in the event of personal or family illness.

1100. SUGDEN, J. P. and PEARCE, S. G. **Personnel management—the first year: achievements, problems, opportunities.** *Hospital and Health Services Review*, London, 1975, May, vol. 71, no. 5, pp. 162-165.

Reorganization of the National Health Service (NHS), its size, public control, professional élites and the need for effective participation of the staff and involvement of the public have magnified the traditional problems of management. There have been some recent practical achievements in personnel management including appointments of regional area and district personnel officers, the creation of nurse personnel posts, free exchange of views by means of meetings, the reconstitution of the two original National Staff Committees and the formation of new ones, and the formation of the National Training Council. Problems are centred mainly on industrial relations and low staff morale. Two of the main tasks for personnel officers are: helping managers to work more effectively as teams and with other teams; and helping in the adoption of some strategy of accountable management. Although reorganization has produced considerable problems it has presented many opportunities. There is the chance to frame more relevant personnel policies and to develop real professionalism throughout the NHS by planned education, training and selection of personnel/training staff. New types of training can be tried and there must be emphasis on senior management training. Measures already in hand to simplify the Whitley system and make it more responsive to local requirements should help industrial relations.

STAFF RELATIONS

See Abstract No. 1210

STAFF TRAINING

See also Abstract Nos. 1104, 1106, 1107, 1179, 1201

1101. CONNELLY, T. and HOYLE, J. D. **Students learn about the health care system.** *Hospitals*, Chicago, 1975, April 16, vol. 49, no. 8, pp. 71-72, 74-75.

In 1973 the University of Kentucky College of Allied Health Professions inaugurated a special course to enable students in the various health service disciplines to get an overall view of the whole health field. This lasts three weeks and consists of one week's orientation within the College followed by two weeks at a hospital and a community

agency during which students visit as many departments as possible to learn about their work. The scheme has been shown to be successful and is to be expanded in future years.

STAFF WELFARE

See also Abstract No. 1157

1102. CRAVEN, R. B., WENZEL, R. P. and ATUK, N. O. **Minimizing tuberculosis risks to hospital personnel and students exposed to unsuspected disease.** *Annals of Internal Medicine*, Philadelphia, 1975, May, vol. 82, no. 5, pp. 628-632.

At the 560-bed University of Virginia Hospital, a 15-month prospective study of staff and students exposed to initially unsuspected active cases of tuberculosis was undertaken to define the risk of their acquiring infection. Eight of 484 (1.65 per cent) staff exposed to 17 initially unsuspected tuberculosis patients and five of 2,013 (0.25 per cent) unexposed staff with similar risk but no known exposures developed positive tuberculin skin tests. Delay in making the diagnosis in these patients was associated with failure to apply a tuberculin skin test on admission to 14 patients and radiological misinterpretation in 15. A comprehensive surveillance method is suggested to minimize the risk of undiagnosed tuberculosis.

OTHER STAFF AMENITIES

1103. KAY, J. **Hospital day nurseries, a cost-effectiveness study.** *Nursing Times*, London, 1975, June 5, vol. 71, no. 23, pp. 898-899.

The primary object of a hospital day nursery is to recruit staff. Therefore the measure of its effectiveness is the whole time equivalent (WTE) employees, by grade, using the nursery and not the number of children using it. Recording of the number of WTE users at the end of each month would show changes over time and enable management to compare the cost of the nursery with the number of recruited staff. It is shown that the net cost of the nursery in one hospital for one year was approximately £7,550 or £255 per WTE worker using it. In the same year this hospital had recruited 3.81 WTE employees more than a hospital without a nursery. The day nursery did not appear to affect sickness absence.

SPECIAL CLASSES OF STAFF

ADMINISTRATIVE AND CLERICAL STAFF

1104. COMMISSION ON EDUCATION FOR HEALTH ADMINISTRATION. **Education for health administration.** Ann Arbor, Mich., Health Administration Press, 1975, xvi, 190, [xii], 330pp. $20.00.

This Commission was established by the W. K. Kellogg Foundation in 1972 to provide a current evaluation of existing and proposed education for health administrators and to determine how changes might improve the delivery of health and medical

services to the American people. The first volume contains the report of the Commission, two background papers, a list of organizations contacted during the study and a list of graduate and undergraduate courses. The second volume contains three reports of special projects conducted by Commission members, report of Commission research, report of a field research study, and papers presented at an institute on new approaches to education for health administration.

MEDICAL STAFF

See Abstract No. 1185

NURSING STAFF

See also Abstract Nos. 1128, 1165, 1167, 1190, 1201, 1203, 1211

1105. PACEY, N. **Nursing employment bureau.** *Nursing Times*, London, 1975, June 5, vol. 71, no. 23, pp. 902-903.

The North West Hertfordshire Health District runs its own employment bureau for the recruitment of all nursing staff other than student and pupil nurses. The bureau is run by a senior nursing officer (SNO) with secretarial help from the district office. Posters and handbills are being widely distributed. Each week the line managers notify vacancies and advertisements are placed in local or nursing papers. Following an initial interview, the SNO will decide where an applicant could best be placed. An interview with the appropriate manager will then be arranged and the first eight lines of the staff introduction card (reproduced) completed. The line manager completes the card after interview and returns it to the SNO. If the applicant is not appointed the SNO will decide whether to refer her elsewhere. Some advantages of the scheme are outlined and possible means of monitoring it are discussed.

1106. PEARSON, J. **Attitudes of undergraduates to their courses.** *Nursing Times*, London, 1975, May 15, vol. 71, no. 20, pp. 783-785.

There are eight courses in England designed to produce State registered nurses with a university degree. This paper is based on visits to the students on five of these courses in an attempt to gain their opinions of and attitudes to their training situation. In addition to general impressions, three areas are discussed in detail: (i) the course in general—design, aims and organization; (ii) interpersonal relationships; and (iii) quality of teaching. It is concluded that undergraduates in a hospital setting find themselves in a difficult position for several reasons which are stated in general terms. Few of these basic problems can be solved by altering the design of the course. Each undergraduate student has to come to terms with her anomalous position by adjusting her own attitudes and expectations. To help them in this, trained staff have to be educated in new methods of interacting with untrained nurses.

1107. DARCY, P. T. **Practical learning for psychiatric nurses.** *Nursing Mirror*, London, 1975, June 5, vol. 140, no. 21, pp. 61-62.

In an attempt to evaluate the practical learning available to psychiatric nurses two studies were carried out in psychiatric hospitals in the Midlands, the North and the

North-West of England in 1974. These showed that although the environments studied had good potential this was not always realized because therapeutic team involvement was lacking: ward meetings were few and clinical conferences were not properly exploited. There was also a failure of long-stay areas to supply learning experiences. Obstacles to practical learning must be overcome by practitioners of psychiatric care so that experience in the practice of treatment skills is provided.

1108. GREAT BRITAIN. SCOTTISH HOME AND HEALTH DEPARTMENT. **Review of the senior nursing staff structure (Salmon report).** Edinburgh, Scottish Home and Health Department, 1974, i, 27pp.

The Committee on Senior Nursing Staff Structure [see *Hospital Abstracts*, Vol. 6, Abstract 1263] recommended a new management structure, which has given rise to considerable controversy and criticism. A steering group was established in November 1973 to review the 12 Salmon schemes in Scotland which had been in operation for two years or more. A questionnaire was sent to all nursing staff in the 12 hospital groups. Its objectives were: (i) to find out if it was true, as had been said, that 'nurses are against Salmon'; and (ii) to indicate, if there were difficulties, what these might be. The results of this survey are presented and discussed. The wide variation in responses indicates that no generalizations are justified. There is however a need to review the implementation of the structure, particularly in three areas: (i) job descriptions; (ii) the role and responsibilities of the nursing officer; and (iii) standing in and acting up. It is also suggested that much could be gained from re-reading the entire original report prior to undertaking reappraisal.

OTHER PROFESSIONAL AND TECHNICAL STAFF

See Abstract Nos. 1172, 1174, 1177, 1179, 1201

ORGANIZATION AND ADMINISTRATION

See also Abstract No. 1108

1109. ANDERSSON, Å. Organisationsudvikling i sygehuset: en fordel at starte med een eller få hospitalsafdelinger. **[Organization development in the hospital: it is best to start with one or a few departments.]** *Sygeplejersken*, København, 1975, May 14, no. 19, pp. 4-7.

Organization development is defined as a psychological effort to improve an organization's use of its human resources by the application of the results of behavioural research. A hospital is an organization whose working depends on effective co-operation between all grades of staff, making it a very sensitive area. Danger signals in a hospital include staff unrest, rumours, absenteeism and slow working. Organization development must commence in a department (or ward) which is already functioning efficiently and happily. Efforts begin with staff attendance at courses in co-operation, and an informal analysis (by interview or questionnaire) of the department to see what problems are experienced. The answers form the basis for subsequent alterations and improvements. Vital to such an investigation are decisions on what is to be investigated, how it is to be investigated, what the results are to be used for and who is going to do the job. The results frequently point to unsatisfactory leadership, in which case the head of the

department concerned has to consider how he is using his power, whether he is delegating authority democratically, and whether everything is being done in the patients' best interests. Hospitals should use the services of professional organization development consultants. Nurses trained for the purpose could usefully be employed on such consultant teams.

1110. MATAKAS, F. Das Gleichgewicht zwischen zentraler Organisationsgewalt und peripherer Autonomie als Problem des Krankenhausmanagements. **[The balance between central control and peripheral autonomy as a hospital management problem.]** *Krankenhaus*, Stuttgart, 1975, April, vol. 67, no. 4, pp. 141-144.

Since doctors have not been trained in the organization and administration of hospitals their administration should be in the hands of management. But in order to ensure autonomy in medical and nursing areas there should be a committee representing both sides which should have the power to promote or prevent organizational measures which have an influence on medical and nursing activity. The committee should represent all interests and at all levels. Such a committee exists at Steglitz Hospital, Berlin, although here the central executive power is in the hands of a medical director rather than an administrator. The 15-member committee includes representatives of professors, junior medical staff, non-scientific staff and students. After a number of teething troubles the system is working well.

1111. PETERS, D. S. **Peer participation in hospital department review.** *Hospital Administration*, Chicago, 1975, vol. 20, no. 2, pp. 8-15.

University Hospital, University of Michigan Medical Center, has instituted a programme of departmental reviews to accomplish three specific goals: (i) to provide a broad range of involvement in the process of establishing departmental objectives; (ii) to promote interdisciplinary understanding and co-operation of the roles, relationships and responsibilities among groups and functions in the hospital and the university; and (iii) to obtain peer participation in the evaluation of departmental performance. Twenty-four hospital departments and functional units are included in the programme. Each is reviewed at least every five years by a multidisciplinary committee of from eight to 12 members. The review mechanisms are outlined. Experience with the system is discussed and the specific recommendations of the review committee for the department of nursing are presented.

1112. SHAW, R. C. **Matrix management: a systems approach to program evaluation.** *Hospital Administration in Canada*, Don Mills, Ont., 1975, April, vol. 17, no. 4, pp. 34-38.

The author proposes a systems approach to the evaluation of hospital programmes, which stresses programme development and change, rather than attempting to evaluate 'static' conditions. Three fundamental concepts of the systems approach, namely planning levels, planning sequence and information systems are described and illustrated diagramatically. These concepts have been developed at Dellcrest Children's Centre, Toronto. Dellcrest has five basic information systems, including the management system whose functions are outlined in a flow diagram. This system outlines organization performance and works closely with the financial system. Evaluation within this system approach occurs in four main ways: (i) indicators, such as days of care, are selected to measure the efficiency of continuing programmes; (ii) monitoring is carried

out involving a monthly review of programme impact and inter-team visiting; (iii) certain indicators are selected for more formal descriptive study, such as volunteer training; and (iv) experimental studies where necessary. The development of this system approach at Dellcrest has led to several useful conclusions about the role of management systems and evaluation systems in general in hospitals.

1113. SHORR, A. S. **A workable management information system for managers, department heads and administrators.** *Hospital Topics*, Neptune, N.J., 1975, March/April, vol. 53, no. 2, pp. 5, 7-8, 25-26, 49.

The hospital management information system (MIS) described in this paper is designed to use the same input as that prepared for the payroll system which makes use of the computer service of an outside organization. Five reports are produced bi-weekly and are delivered to the hospital five days after the close of each pay period. The reports are as follows: (i) class budget by worked department (giving budget hours, full-time equivalent budget and position budget); (ii) classification by worked departments; (iii) 'shift recap', giving where applicable an analysis of the use of hours worked by shift; (iv) 'classification recap' (not yet used) giving hours worked, holiday, vacation, sick time, overtime and reflecting year-to-date totals for hours worked and dollars paid by worked department and job classification; and (v) employee summary, giving the details for each individual. The system has led to considerable cost reduction and has made possible a more rational approach to effective management and use of resources.

1114. CRAWFORD, L. E. **The bedside dollar.** *New Zealand Hospital*, Auckland, 1975, Feb./March, vol. 27, no. 1, pp. 6-10, 13-14, 16-17.

This paper describes the introduction and implementation of a management programme at Wellington Hospital. The project was similar to that at Sydney Hospital [see *Hospital Abstracts*, Vol. 12, Abstract 966] and was undertaken by the two men chiefly involved in Sydney, one of whom is the author of this paper. They began work in February 1973 in the nursing division, where the nurses were introduced to the fundamental rules of management and then helped to apply them to their jobs. The aims of the programme were twofold: to improve patient services and to get better value from the hospital's resources. The two key indices of hospital resource use are bed use and length of stay: interim objectives for these were set. A steering committee was appointed and made proposals on policy and reorganization. The committee also outlined points relevant to implementation of the policy on accountability, autonomy, a corporate plan, responsibility accounting and organization. Guidance is given on introducing change with particular reference to the management development unit, a small multidisciplinary group reporting direct to the hospital executive.

ECONOMICS OF HOSPITAL MANAGEMENT

See also Abstract Nos. 1103, 1174, 1177, 1183

1115. PRIMS, A. V. and DELESIE, L. B. **Economic efficiency of hospitals and their ancillary services.** *Hospital Administration*, Chicago, 1975, vol. 20, no. 2, pp. 30-46.

From the economic point of view the modern hospital reveals itself as a corporation

as well as a public institution. This dichotomy confuses the real issues of economic efficiency and fosters a piecemeal approach which proves to be detrimental to the objectives of an economically sound patient care programme. The conceptual difficulties encountered in redressing this situation are investigated. The anticipated efficiency-improving developments in the ancillary services are indicated. Nevertheless, these guarantee only small progress towards the hospital's ultimate objective of an economically sound patient care programme. Therefore the major problem areas in this respect are indicated and investigated. Finally, some attention is paid to the methodological implications these will have on techniques of evaluation and measurements.

1116. HÄRING, H. Die Überprüfung der Wirtschaftlichkeit der Krankenhäuser. **[Examination of hospital economy.]** *Krankenhaus Umschau*, Kulmbach, 1975, May, vol. 44, no. 5, pp. 297-300, 303-306, 311.

The new West German legislation on hospital financing states that the costs of 'an economically operated and efficient hospital' should be covered by the grants laid down in the legislation and the allowances per patient day. This paper examines what is meant by economical operation and efficiency, as applied to commercial undertakings in general and hospitals in particular: it also discusses the ways in which hospital efficiency can be audited. The first requirement is an adequate accounting system which can analyse and compare departmental costs within the hospital and with those of other hospitals. Average bed occupancy is also a guide to efficiency and in general should not be much below 85 per cent. The cost per service and per patient is affected by average length of stay: in Bavaria this was 17.7 days in 1972 and it is expected that this will be reduced to 16.5 days by 1985. Efficiency in the planning of hospitals and in the organization of management is also dealt with in some detail.

RUNNING COSTS

See also Abstract Nos. 1168, 1191, 1211

1117. ELNICKI, R. A. **SSA-Connecticut Hospital incentive reimbursement experiment cost evaluation.** *Inquiry*, Chicago, 1975, March, vol. 12, no. 1, pp. 47-58.

With the object of reducing the growth of hospital costs the United States Social Security Administration and Connecticut Blue Cross jointly financed a three-year experiment in cost evaluation. Although the experiment covered the years 1970, 1971 and 1972 only the figures for the first two years were included in the evaluation. The method used was 'peer review' whereby a target was set for each department surveyed by 'peers' from other hospitals. Of the 35 general hospitals in Connecticut 17 voluntarily took part, the remaining 18 acting as controls. For 1970 the departments included were housekeeping, laundry-linen, medical records and non-maternity nursing: in 1971 administration and general, catering, plant operations, repairs and maintenance, and pharmacy were added. Evaluation was based on the number of paid hours of work (rather than actual salaries paid), direct supply expenses and depreciation expenses (the latter was excluded after the first year). Full details are given of methodology and results: the conclusion is that the experiment did not reduce cost growth in the participating hospitals.

BED OCCUPANCY, ECONOMIC USE OF BEDS

See also Abstract Nos. 1164, 1168, 1205

1118. KARAS, S. **Cyclicality of hospital admissions and emergency department visits.** *Journal of the American College of Emergency Physicians*, East Lansing, Mich., 1975, March/April, vol. 4, no. 2, pp. 126-128.

An investigation was made at the Los Angeles County—University of Southern California Medical Center to see whether the numbers of hospital admissions and emergency department visits varied according to cycles, and if these cycles correlated with natural phenomena such as phases of the moon. Patient numbers were analysed by computer for each of three shifts, 0800 to 1600; 1600 to midnight; midnight to 0800, during the period 1 January 1973 to 30 June 1974. Results showed that the busiest shift was from 1600 to midnight. Further analysis involving Bartel's test of significance showed a clear seven-day cycle, with a low regularly occuring 92 per cent of the time on Saturday (71 per cent) or Sunday (21 per cent) and a rapid rise to a high occurring 92 per cent of the time on Monday (63 per cent) or Tuesday (29 per cent). This cycle could be due to the Center being a referral hospital receiving more transfers earlier in the week, but this is not supported by hospital records. No correlation was found between the patient cycle and natural phenomena. The discovery of the cycle has enabled the Center to concentrate staff and other resources at peak periods, and so improve efficiency and prevent waste.

APPOINTMENT SYSTEMS, WAITING LISTS

1119. CULYER, A. J. and CULLIS, J. G. **Hospital waiting lists and the supply and demand of inpatient care.** *Social and Economic Administration*, Exeter, 1975, vol. 9, no. 1, pp. 13-25.

This paper is concerned with the fact that, although supply capacity (average number of daily available beds divided by average length of stay) has increased considerably since the inception of the National Health Service in 1948, the number of patients on hospital waiting lists has been nearly constant at half a million. A detailed discussion of the reasons for this lead to the conclusion that what is needed is a broadening of the notion of professionalism, for both doctors and administrators, so that consideration of (for example) the convenience of patients is included in their training. In addition there must be indicators of performance, and of the consequences of waiting, as well as the routine statistics on waiting lists and waiting times.

DATA PROCESSING

See also Abstract Nos. 1071, 1113, 1127, 1129, 1131, 1176, 1178, 1180

1120. BALL, M. J. and HAMMON, G. L. **Overview of computer applications in a variety of health care areas.** *CRC Critical Reviews in Bio-Engineering*, Cleveland, 1975, Jan., pp. 183-208.

This paper attempts to present a broad overview of the application of computers in

the health care field in the United States. The paper is in two parts: (i) clinical applications, including clinical laboratory, pharmacy, medical records, admission, radiology, out-patient clinics, catering, patient history, and administrative areas; and (ii) hospital information systems, which are discussed in three sections, those handling primarily data collection and message switching, those which additionally incorporate certain medical record functions, and mini-computer systems.

1121. HANSEN, J. V. **Progress in health care systems.** *Journal of Systems Management*, Cleveland, 1975, April, vol. 26, no. 4, pp. 14-21.

Medical information systems using electronic data processing can be grouped into four categories: those which support administrative management only; those which support current patient care only; those which support research only; and those which support administration, patient care and research. The systems in use within each category are described and evaluated. The computer systems at present in use in hospitals are not sufficiently comprehensive and more work is needed to develop this field.

1122. KNIJNENBURG, C. M. Structuur en werking van een on-line regionaal ziekenhuis-informatiesysteem. **[Structure and operation of an on-line regional hospital information system.]** *Technische Gids voor Ziekenhuis en Instelling*, Amsterdam, 1975, May 13, vol. 44, no. 1075, pp. 382-385.

A regional on-line electronic data processing (EDP) installation serving 10 hospitals and using the IBM Data Base/Data Communicating system is described. It covers the following information: patient identification and registration; out-patient appointments; request communications; drug orders; pharmacy stores; electrocardiogram analysis; and patients' histories. Each participating hospital appoints a co-ordinator who serves on the steering committee with the EDP manager. A working group approves detailed schemes developed by specialist groups.

SECRETARIAL SERVICES

1123. BOCKSLAFF, H., HEYER, H. and BARGHOLZ, C. Programmierte Textverarbeitung mit Magnetbandschreibern. **[Programmed text processing with a magnetic tape typewriter: a rational system for medical transcription.]** *Krankenhaus Umschau*, Kulmbach, 1975, May, vol. 44, no. 5, pp. 312-314.

The programmed text processing system, using a magnetic tape typewriter, which has been used successfully at the Hanover Medical School for the compilation of medical letters since 1970 is described. A binomial code system is used for addresses and constantly recurring text elements, supplemented by normal dictation where necessary. This represents a compromise between individual dictation and complete automation. Dictation performance has been increased by 50 to 80 per cent and efficiency in typing has also increased.

MEDICAL RECORDS

See also Abstract No. 1131

1124. BASHOOK, P. G., SANDLOW, L. J. and HAMMETT, W. H. **Education plan key to POMR success.** *Hospitals*, Chicago, 1975, April 16, vol. 49, no. 8, pp. 54-58.

The training of hospital staff in the use of the problem-oriented medical record is described. Doctors need five or six sessions, preferably one a week, each lasting from one to one and a half hours. The same is necessary for nurses with the possible addition of one further session devoted to flow sheets and progress notes. For other staff concerned there should be not more than three separate sessions of one to one and a half hours. A detailed syllabus of instruction for each group is set out in the form of a table.

1125. DE VRIES ROBBÉ, P. F. **Useful elements of P.O.M.R.—a report of experience.** *Medical Record*, Boston, Lincs., 1975, vol. 16, no. 1, pp. 13-17.

The development of an automated medical record system raises the question of which data has to be stored and which structure is useful. The most important elements in the problem-oriented medical record are the structuring according to: (i) problems; and (ii) findings, impressions and plan. The former has very serious disadvantages. From the latter has been developed the F.I.P. record, which is divided into findings, interpretations, and plan. This has been in use for nearly two years in the department of obstetrics and gynaecology of University Hospital, Groningen. The form used for the record is reproduced and instructions for its use are given. The F.I.P. record seems to be a reasonable method of structuring computer-stored, free-text medical records by using the data and interpretation columns as entries.

1126. PHILLIPS, D. F. **Some POMR criticism clearly misdirected.** *Hospitals*, Chicago, 1975, April 16, vol. 49, no. 8, pp. 58-61.

This paper reviews a number of published criticisms of the problem-oriented medical record. Much of the criticism is concerned with the way in which the system has been advocated rather than with the idea or the record itself. The criticisms can serve the following purposes: to lead to a re-examination of the basic principles; to reveal the practical problems which arise when a theoretical device is applied; to bring to light aspects which are not properly understood; and to lead to a deeper understanding of the concept.

1127. SPARROW, J. **Problems of creating a community health record.** *Medical Record*, Boston, Lincs., 1975, vol. 16, no. 1, pp. 22-35.

This paper discusses the problems encountered during the development of a single patient record covering all contacts with the health services as part of the Exeter Community Health Services Computer Project. The aspects covered include: basic decisions; method of accessing information; types of index; the integrated patient record (IPR); base cells; data cells; initial creation of the IPR; and confidentiality. Appendices show: outline of the IPR; health service units involved; central computer configuration; location of terminals; a summary general practitioner record; file structure; and lists of hospital and health centre applications.

1128. MITCHELL, P. H. and ATWOOD, J. **Problem-oriented recording as a teaching-learning tool.** *Nursing Research*, New York, 1975, March/April, vol. 24, no. 2, pp. 99-103.

The use of problem-oriented medical records has been acclaimed as a better method of providing, documenting and also teaching systematic patient care. A study was made in the United States of 146 nursing students in a baccalaureate programme to test the following hypotheses: (i) the experimental group (half of the students, who were taught by the problem-oriented method) would identify more patient problems in clinical charting, more problems from raw data in a case study and more potential patient problems than the control group (taught traditional charting); (ii) the experimental group should identify more 'nursing focus' problems, related to everyday living, whereas the control group should identify more medical and procedural problems; and (iii) the experimental group should document plans, actions and evaluation more frequently than the control group. Data collected both from nurses' written work and from patient notes, was then analysed by computer. Hypothesis (i) was supported when clinical recording was analysed, but both groups had equal ability to identify problems, although the problem-oriented system documented this identification more clearly. Hypothesis (ii) was not supported, and hypothesis (iii) was partially supported. The experimental group's improvement in documenting their ability to identify and solve patient problems appears the most valuable result of the problem-oriented system.

1129. O'KANE, K. C. and HILDEBRANDT, R. J. **The use of television in medical information systems.** *Management Datamatics*, Leyden, 1975, Feb., vol. 4, no. 1, pp. 7-8.

A substantial part of the cost of computerized medical record systems is involved with local communications within the institution. There are also problems of speed and staff aversion to using computer terminal keyboards. This paper proposes the use of the central house television antenna system, usually available in most modern hospitals, as a means of high-speed, low-cost data transfer. One or more cathode ray terminals would be connected to both the computer system and the central television antenna system. Medical staff in a patient's room or anywhere near a standard television receiver could telephone the central system operator and dictate instructions while viewing on the television the display being generated by the operator.

HOSPITAL STATISTICS

1130. FARKAS, I. J. Medizinische und ökonomische Effizienzstatistik des Allgemeinen Krankenhauses. **[Statistics on the medical and economic efficiency of general hospitals]** *Krankenhaus Umschau*, Kulmbach, 1975, May, vol. 44, no. 5, pp. 286, 291-294.

In Rumania detailed hospital statistics are maintained on a national basis which serves a useful purpose in evaluating efficiency. The main statistical indicators, the formulae for which are given, include those for polyclinic treatment, for in-patient treatment, mother and infant care, child welfare, tuberculosis control, and veneral disease control. The following costing figures are maintained: cost per bed; cost per discharged patient; cost per patient day; drug cost per patient; and drug cost per

patient day. Average figures for staff per 100 beds, beds per doctor, and beds per nurse are also recorded. During the last 10 years medical treatment has become concentrated in modern hospitals and smaller health service units are being eliminated.

1131. MOWBRAY, D. and WILLIAMS, P. **The development of a medical information system in the Cardiff area.** *Hospital and Health Services Review*, London, 1975, May, vol. 71, no. 5, pp. 152-156.

A medical information system project was set up in June 1973 to examine the information requirements of decision makers at the operational level of the mental health service in the Cardiff area. Multidisciplinary groups were established to examine and recommend improvements in information flow and communication between community services for the mentally handicapped and hospital-based services for the mentally ill. One group was concerned with the overall co-ordination of the project. The mental health service in greater Cardiff provides services for about 380,000 people; hospital beds provided for the mentally ill are in the ratio of 1.84 per 1,000 population; those for mental handicap give a ratio of 1.01 per 1,000. The purpose of the study was to examine information flow relating to the management of patients by: (i) identifying existing information sources; (ii) examining and improving methods of co-ordination; and (iii) considering how to improve the information systems for planning and control. One of the main recommendations was the suggestion that some sort of information co-ordinating machinery should be available to health care agencies. In order to test the hypothesis that one central point could collect and distribute information, an experimental co-ordinating centre has been set up at Whitchurch Hospital. A multi-disciplinary steering group controls the development of the centre the first main task of which is to establish a psychiatric case register. The concept of the centre has now been expanded to include co-ordination of bibliographical and administrative information.

HOSPITAL ACCREDITATION AND SIMILAR SCHEMES

See Abstract No. 1212

FINANCE AND ACCOUNTING

FINANCE

See also Abstract Nos. 1135, 1137

1132. WOOD, J. C., editor. **Financial management: an overview.** *Topics in Health Care Financing*, Rockville, Md., 1974, vol. 1, no. 1, pp. 1-80.

This paper is designed as an introduction to modern health care financial management for administrators and a review of current trends for financial specialists. Its objective is to describe clearly and briefly in non-technical terms the major areas of concern. A glossary and selected bibliography are included.

1133. LEMER, R. S. and WILLMAN, D. D. **Rate setting.** *Topics in Health Care Financing*, Rockville, Md., 1974, vol. 1, no. 2, pp. 1-146.

This paper is concerned with the issues involved in the establishment of rates or charges that are equitable not only to third party payers and consumers but also to the hospitals so that they can maintain their economic viability and provide medical care of the highest quality.

1134. WOOD, J. C. **Medicare reimbursement.** *Topics in Health Care Financing*, Rockville, Md., 1975, vol. 1, no. 3, pp. 1-170.

Medicare, established in 1965, provides health care as a right and not a privilege for more than 23 million elderly people in the United States. Behind the social concept embodied in Medicare is a most complex administrative mechanism, a partnership between the government and the private sector of society. This paper attempts to provide an overall view of the Medicare programme—a background against which administrators may improve the financial effectiveness of their daily decisions.

HOSPITAL ACCOUNTING

See also Abstract No. 1213

1135. SEAWELL, L. V. **Hospital financial accounting: theory and practice.** Chicago, Hospital Financial Management Association, 1975, xiv, 569pp.

This book is designed primarily for use by students of hospital accounting and finance on courses of an intermediate character, but it should also be useful for general reference purposes to anyone interested in the accounting and financial practices of hospitals. The book is in five parts: (i) basic concepts, principles and procedures; (ii) revenue and expense accounting and management; (iii) current resources accounting and management; (iv) long-term resources and obligations; and (v) external financial reporting and analysis. A glossary of terms is included.

1136. DIJL, P. W. van. De doeleinden van kostencalculatie voor ziekenhuizen. **[The objectives of cost calculation for hospitals.]** *Instelling-Management*, Den Haag, 1975, May, vol. 7, no. 6, pp. 22-25, 27.

Cost accounting in hospitals is analogous to that used for industrial undertakings. The four objectives of an efficient system are as follows: to determine costs as required for the fixing of charges; to determine costs in relation to the evaluation of the need for information, etc.; to determine costs in relation to the control of efficiency, for example by means of cost comparisons; and to determine costs in relation to capital investment decisions and decisions to 'make or buy'. Each of these objectives is discussed in detail.

1137. MAGEE, C. C. **Financial resources in the hospital service.** *Accountant*, London, 1975, May 1, vol. 172, no. 5235, pp. 560-562.

Problems of allocating financial resources to the various parts of the hospital service through its accounting system are discussed. Such accounting systems have usually been based on stewardship rather than being developed for cost-benefit services. This

results in summaries of expenditure biased towards function rather than activity, which do not fully identify expenditure incurred by reference to services provided, for example for individual patients; instead total costs, such as ward expenditure or staff salaries, are given in the form of broad averages. Recently, the increasing expenditure on, and demand for, services has necessitated the development of more comprehensive financial reports, so that available resources may be better allocated. Problems also arise when projecting costs for the next year, particularly in cases of rapidly rising costs, and an acceptable level of service must be maintained at any cost. However, the financial cost must impose constraints on some non-emergency developments such as particular screening services. Unit, group and projected costings should become a regular function of the hospital's accounting system if accurate financing of hospital services is to be achieved. Such an approach was used during a 1974 study on costing of cervical cytology at University College, Cardiff. The development of a methodology for distributing various elements of cost over patients, probably grouped on a diagnostic basis, is needed and these procedures should then be used on a wide scale in the hospital service.

SUPPLIES AND STORES

SUPPLIES

1138. PRITCHETT, T. W. **The key to success in materials management.** *Hospital Topics*, Neptune, N.J., 1975, March/April, vol. 53, no. 2, pp. 27, 29, 48-49.

In 1970 Gottlieb Memorial Hospital, Melrose Park, Ill., decided to develop a unified materials management programme instead of the separate central store (controlled by the purchasing department), central supply (a nursing activity), and linen service (part of the building services department). The first step was to reorganize the storeroom and its records to provide a perpetual record and inventory system. The second step was the transfer of linen service to the material services department and the third step was the transfer of central supply to material services. The hospital now has one individual who is entirely responsible for all purchasing, receiving, storage and distribution of materials.

PURCHASING

1139. **What's ahead in purchasing?** *Hospital Administration in Canada*, Don Mills, Ont., 1975, March, vol. 17, no. 3, pp. 39-45.

A questionnaire on purchasing trends was answered by 213 Canadian hospitals. The questionnaire covered: changes in spending planned for 1975; changes in capital budget in 1975; anticipated purchasing problems; participation in central laundries, common laboratory programmes and group purchasing; areas covered by group purchasing; success of group purchasing; changes in group purchasing involvement; comments on group purchasing; major influence in purchasing decisions; contract services; leased equipment; facts about purchasing agents and departments; central purchasing; inventory control; use of supplies; and use of disposables. The results are presented in tables and discussed; many comments from individual hospitals are included. Most purchasing agents see price increases, delivery delays and supply shortages as their main problems.

ECONOMIC USE OF SUPPLIES, DISPOSABLES

1140. NYSTRÖM, B. Läkarens erfarenheter av plast—funktionella, hygien- och praktiska synpunkter. **[Medical experience with plastics—functional, hygienic and practical viewpoints.]** *Sjukhuset*, Göteborg, 1975, vol. 52, no. 5, pp. 281-282.

Plastic plates and cutlery are unpopular with patients; it is therefore worth retaining conventional ware and investing in dishwashers for the ward kitchens. Similarly, bedpans and urine bottles can be washed out automatically: there is no economic or hygienic motive for using disposable, or re-usable, plastic articles. As the disinfection of bedding is slow and expensive, mattresses and bedding are usually protected by plastic (which can be disinfected after use) or by disposable paper. The use of plastic overshoes in isolation rooms, etc. is totally unjustified on any grounds. Provided the items supplied are highly sterile, the use of disposable plastic laboratory equipment (test tubes, petri dishes, etc.) is a great advantage from the hygienic, space- and labour-saving points of view. The wrappings for sterile articles must to a greater extent than at present ensure that the item is sterile at the moment of use. It is also far too easy to erase the graduations on disposable syringes with a damp finger. Where plastic catheters are used, or plastic parts of large and complex items of equipment like heart-lung machines, it must be possible to disinfect them easily and completely. Great care must be taken in the disposal of rubbish containing used plastic items, especially in ensuring sufficiently high temperatures in the incinerators.

STORES

See also Abstract No. 1090

1141. **Centralized supply, processing, and distribution.** *Hospitals*, Chicago, 1975, April 16, vol. 49, no. 8, pp. 69-70.

In 1972 the Holy Redeemer Hospital, Meadowbrook, Pa., set up a centralized supplies, processing and delivery (SPD) department. The receiving function was hived off from the purchasing department and made a division of SPD. Each floor has an SPD manager who is responsible to a floor co-ordinator acting as a liaison with the wards. There is a semi-automated handling and delivery system. Two years' experience of the system has shown it to be an improvement on the previous decentralized system with a more rational use of transport and communication.

CATERING, DIETETICS, KITCHENS

HOSPITAL CATERING

1142. UNKLESBAY, N. and UNKLESBAY, K. **Energy consciousness needed in food service employees.** *Hospitals*, Chicago, 1975, March 16, vol. 49, no. 6, pp. 122, 124-126.

This paper describes studies of four stages of food production (storage, production service and sanitation) to determine the energy used and the potential for savings.

Among the observations made were: (i) a walk-in refrigerator was open for 26.8 per cent of three observation periods; (ii) a convection oven was on longer than necessary including an unnecessarily long pre-heat time; (iii) electrical components of a central tray assembly were turned on 45 minutes prior to service; (iv) the number of trays filled per minute could be improved; and (v) during five one-hour periods a dishwasher was effective for 109 minutes, ineffective for 58 minutes and idle for 133 minutes and many racks were not completely full.

1143. WELSH, J.N. **Four-day workweek implemented.** *Hospitals*, Chicago, 1975, April 16, vol. 49, no. 8, pp. 89-90.

In the catering department at Portsmouth (Va.) General Hospital, a four-day week has been introduced for all staff. They work a 10½-hour day and over a 14-week roster have at least one week-end day off for 10 successive weeks and four weeks in which all days off are during the normal working week. Normally four days on are followed by three days off and no-one works more than eight days in any two-week period. The number of staff was reduced gradually from 64 to 42. The planned objectives have been achieved and include: reduced labour costs, less absenteeism and reduced staff turnover; increased morale and productivity; more variety in duties; and improved service to the hospital. The coronary care unit has now adopted a four-day week and other departments are thinking of doing so.

1144. CLEMENCE, E. **Food loss and cost control.** *Dimensions in Health Service*, Toronto, 1975, April, vol. 52, no. 4, pp. 12, 14.

Measures to control food loss resulting from spoilage, infestation and pilfering are outlined. These include: protection from dampness or, in the case of refrigerated foods, from drying; the use of insecticides or rodenticides; and the maintenance of proper records of the receipt and issue of foodstuffs. Tables show storage temperatures and maximum storage times for certain basic foods and a specimen card for perpetual inventory of stores is reproduced.

KITCHENS

1145. HARTMAN, J. **Innovations in food service equipment.** *Hospitals*, Chicago, 1975, March 16, vol. 49, no. 6, pp. 126-128.

This paper describes briefly a number of greatly improved pieces of equipment for established food systems. A trolley system consisting of interchangeable parts made of colourful polycarbonate material is quieter than metal. A new carousel tray make-up conveyor is equipped with variable speed control, a safety cut-off and removable stainless steel tray holders. It accommodates hot and cold foods and condiments. Tray make-up time is reduced by 40 per cent and the floor space required from 30 feet to less than 15 feet. A self-propelled, battery-operated serving trolley keeps food at the correct temperature and carries 20 trays. A stainless steel convertible transport module is available in 20- and 40-tray sizes and is programmed for holding/refrigeration and heating/conversion cycles. The Transferautomats are high-volume, specialized units that feed food into a moving line for continuous production. Approximately 2,500 to 3,000 portions are produced per hour per unit and 60 trays per minute portioned and served. A combination of several Transferautomats and one conveyor belt operated by three catering staff can produce about 14,000 completed meals per day.

LAUNDRIES AND LINEN SERVICE

LAUNDRIES

See also Abstract No. 1077

1146. Ross, B. T. and Arnone, S. **Labor monitoring reflects operation.** *Hospitals*, Chicago, 1975, March 16, vol. 49, no. 6, pp. 151-154.

The authors describe the productivity baseline programme introduced at the Mount Sinai Hospital, New York City, in 1971 to develop work or productivity standards to provide a control reporting system for various levels of management. The programme at present covers the pharmacy, laundry, housekeeping, medical records, nuclear medicine and some laboratory services, the laundry being the subject of this paper. Detailed documentation on labour, the working environment, work flow and productivity output accountancy is required for the implementation of the system. A graph indicates the relative costs involved in obtaining accurate details of established work standards. Samples are included of the standard hours development form, used to compute man-hours per unit of work volume, monthly work volume and standard hours for each work function based on the work volume, and the productivity performance monthly report sheet, used to show staffing, hours and performance ratings, past and present. Practical results in the laundry have included: (i) job merging to use manpower more effectively; (ii) useful analysis of the effects of different materials and equipment on productivity; (iii) monitoring costs and their controls; and (iv) comparison of laundry operations and costs with other institutional laundries and outside laundry services.

HOSPITAL LINEN AND TEXTILES

1147. Textilsvinn på 11 mkr medför strängare rutiner vid stockholmssjukhusen. **[Materials losses of 11 million kr. lead to stricter routines in Stockholm hospitals.]** *Landstingens Tidskrift*, Stockholm, 1975, April, vol. 62, no. 5, pp. 14-17.

Stockholm County Hospital Management Committee is responsible for 19,000 beds in its 700 wards. Annual losses of linen amount to 200 tons and result from items being thrown away, stolen by staff and patients, given away to 'social' cases, and stockpiled in ward linen cupboards instead of circulating. Ward staff must have the value of care and economy impressed on them during training. New methods of handling textiles may also have to be developed. The County and the unions have agreed on an attractive new uniform, and 100,000 suits were purchased in 1974. Shortages have already developed, and staff are reminded that it is illegal to take hospital clothing home. Transparent bags are being introduced to prevent laundry bags being thrown down the incinerator shafts. Laundry costs are greatly increased by inclusion in the bags of a wide variety of items which ruin the textiles and the machinery; this must be removed on the wards. Very high percentages of unused items find their way into laundry bags. It is not the duty of the ward staff to declare items unserviceable and throw them away: the laundries have staff for this. High staff turnover makes training difficult, but economy pays.

HYGIENE IN THE HOSPITAL

1148. Hygiène et nuisances à l'hôpital. **[Hygiene and nuisances in the hospital.]** *Hôpital à Paris*, Paris, 1975, Jan./Feb., no. 25, pp. 13-70.

This special feature includes papers on: cleanliness; asepsis; criticism of over-generous use of antibiotics and the need for the improvement of asepsis; ecology and microbial ethology in the hospital environment; problems posed by the sterilization of modern equipment; the harmful effects of noise and other nuisances; the results of a survey of patients' views on nuisances. The feature concludes with a round-table discussion on nuisances.

HOSPITAL INFECTIONS

1149. LIGHT, I. J., ATHERTON, H. D. and SUTHERLAND, J. M. **Decreased colonization of newborn infants with *Staphylococcus aureus* 80/81: Cincinnati General Hospital, 1960-1972.** *Journal of Infectious Diseases*, Chicago, 1975, March, vol. 131, no. 3, pp. 281-285.

The changing pattern of *Staphylococcus aureus* infection in newborn infants has been studied at Cincinnati General Hospital by examining 25,662 nasal and umbilical cultures from 9,216 infants during 1960 to 1972. Colonization with *S.aureus* 80/81 of newborn infants in the nursery decreased significantly during 1963 to 1965 and has since remained low: this change was unrelated to the use of hexachlorophene or to changes in sensitivity to penicillin and kanamycin. A similar decrease occurred with *S.aureus* lysed by the group 2 phages but this resumed its previous level when hexachlorophene was no longer used.

SOURCES OF INFECTION

See also Abstract Nos. 1153, 1154

1150. STAMM, W. E. and others. **Indwelling arterial catheters as a source of nosocomial bacteremia: an outbreak caused by flavobacterium species.** *New England Journal of Medicine*, Boston, Mass., 1975, May 22, vol. 292, no. 21, pp. 1099-1102.

Between May and October 1973 49 blood cultures from 14 intensive care patients were positive for flavobacterium. Indwelling arterial catheters were found to be associated with the infection and the risk was greatest while blood gas determinations were being carried out most frequently (during the first three days of catheterization). Flavobacterium was cultured from catheters in use, from stopcocks and from ice in the intensive care unit's ice machine. The catheters were probably contaminated from syringes cooled in ice before being used to obtain specimens for blood gas determinations.

1151. ANAGNOSTAKIS, D. and others. **Risk of infection associated with umbilical vein catheterization: a prospective study in 75 newborn infants.** *Journal of Pediatrics*, St. Louis, 1975, May, vol. 86, no. 5, pp. 759-765.

To determine the infection risk of catheterization of the umbilical vein 75 jaundiced, but otherwise healthy, newborn infants subjected to exchange transfusion in an Athens

hospital were studied. Fifty-three per cent of the umbilici were contaminated before insertion of the catheter in spite of careful cleansing and 62 per cent of catheters were colonized on removal. Bacteria were isolated from 44.9 per cent of blood specimens drawn via the catheter at the onset of exchange transfusion but from only 14 per cent of specimens drawn after the procedure. Seven of the infants were bacteraemic four to six hours after exchange transfusion. Systematic antibiotic treatment did not reduce the overall prevalence of colonization of cord and catheter of positive blood cultures before and after transfusion, or the rate of bacteraemia.

PREVENTION AND CONTROL

See also Abstract No. 1157

1152. COPPING, J. D. **Information and reporting: the basis of infection control.** *Hospital Administration in Canada*, Don Mills, Ont., 1975, April, vol. 17, no. 4, pp. 23-24, 26.

The objectives of a hospital infection control programme are the prevention of hospital-acquired infection, and the early identification and containment of all types of infection. Although programmes must be designed to suit individual hospitals, every programme must include early and complete reporting of all infections, whether suspected or proven. Data collected must include full patient details, and information on the type of infection, its severity and related clinical and bacteriological evidence. Prompt notification to the infection control officer is then essential, either during his daily consultations with medical staff or by using forms which he receives daily. Attitudes of staff, such as extreme laxity towards infection problems, or else attempts to prevent it at all costs by excessive use of antibiotics both have dangers, so staff should ensure that infections are always reported honestly and accurately; the resulting investigation should not always seek to apportion blame since in most hospitals some infection is inevitable. Such procedures help to ensure increasingly high standards of hospital care.

1153. HOLM, I. and WRETLIND, A. Profylax mot infektion och sepsis vid parenteral nutrition via central venkateter. **[Prevention of infection and sepsis in parenteral nutrition via venous catheters.]** *Tidskrift för Sveriges sjuksköterskor*, Stockholm, 1975, May, vol. 42, no. 10, pp. 47-50, 52.

Catheter sepsis occurs in anything up to 27 per cent of cases of central venous catheterization, although the frequency can be reduced by improved aseptic technique. One should avoid the use of central venous catheters as long as possible, and give perfusions via peripheral veins—preferably in arm veins, since deep thromboses arise too easily in leg veins. The techniques of catheterization are outlined. The system chosen must work efficiently with the minimum of manipulations and must be designed to avoid infection; all parts and solutions used must be guaranteed sterile. Implantation must always be regarded as a major operation. The metal parts of the cannulae, etc. must always be flame sterilized (spirit lamp) at each manipulation. The paper is illustrated with 10 figures illustrating various forms of catheterization apparatus.

1154. STAMM, W. E. **Guidelines for prevention of catheter-associated urinary tract infections.** *Annals of Internal Medicine*, Philadelphia, 1975, March, vol. 82, no. 3, pp. 386-390.

The most common site of hospital infections in the United States is the catheterized urinary tract. These infections cause illness, lengthen the stay in hospital and contribute to mortality from Gram-negative septicaemia. Strict adherence to appropriate infection control procedures is necessary if the incidence of these infections is to be reduced. This paper gives a check list of 12 measures to be taken in the control of infection by urinary catheter care. There are 80 references to the literature.

1155. BARTHA, G. Fertözökórház fertötlenítörészlege és ágyközpontja. **[Disinfection and bed centre in a hospital for infectious diseases.]** *Egészségügyi Gazdasági Szemle*, Budapest, 1975, March, vol. 13, no. 1, pp. 67-86; summary in Russian, English and German, pp. 86-87.

This paper presents a scheme for a disinfection unit and bed centre in a 1,000-bed infectious diseases hospital. Technical data is given on five sterilizers as well as the space requirements for their installation. The siting of equipment, work flow, transport and staff and energy requirements are discussed. The paper concludes with a thorough financial analysis of the unit. Plans and photographs are included. [This abstract has been prepared from an English summary of the paper.]

STERILIZATION

1156. ANDERSSON, H.-E., EEG, K. and LUNDHOLM, M. Desinfektion med värme. **[Disinfection with heat.]** *Sjukhuset*, Göteborg, 1975, vol. 52, no. 5, pp. 285-286.

Tests have shown that disinfection by heat in properly designed apparatus working at 85°C has a significantly higher frequency of inactivation on vegetative bacteria than the commonly used chemical disinfectants such as five per cent OF-soap solution. Once disinfected, equipment must not be allowed to become infected on its way to central sterilization: this is achieved by packing contaminated articles on the wards for removal. It is questionable whether it is worth sterilizing items which are later going to be autoclaved. For materials remaining on the ward, the sluice should be divided into two portions (contaminated and clean) so that clean items can be stored satisfactorily. Crockery and cutlery should be disinfected as efficiently as all other items that are transported about the hospital. The introduction of decontaminating washing-up machines for surgical equipment, centrally placed in theatre, has greatly improved surgical hygiene. Anaesthetic tubes should thereafter be kept in a dry cabinet. Dialysis equipment and respirators can now be autoclaved whole. Hospital laundries must work with a programme involving a temperature of 90°C to disinfect textiles effectively. The only effective way of killing all micro-organisms is by burning them, as is indeed done with dialysis filters and other disposable articles. The paper is illustrated with a graph showing that disinfection by heat (85°) is as effective in one minute as two hours' chemical disinfection.

DISPOSAL OF WASTE

1157. OSTERMAN, C. A. **Relation of new disposal unit to risk of needle puncture injuries.** *Hospital Topics*, Neptune, N.J., 1975, March/April, vol. 53, no. 2, pp. 12-13.

A specially designed 'contaminated material container' has been in use at the University of Virginia Medical Center since May 1972. It is 24 inches high by 12 inches wide by 12 inches deep, has a two-inch false bottom and a sufficiently wide opening at the top so that materials can be disposed of without having to be forced in. It is primarily intended for the safe disposal of needles and syringes but is also used for masks, intravenous tubing with needles attached, contaminated dressings, etc. Some 130 of these containers are in use at any one time and the replacement rate (no container is in use for more than a week) is 75 per week. Used containers are incinerated with their contents. The rates for needle injuries among domestic staff declined from 11.1 per 1,000 in 1971 to 8.1 per 1,000 in 1973 and the containers may have contributed to this reduction by providing safe receptacles.

SAFETY MEASURES

ACCIDENTS, GENERALLY

See also Abstract No. 1157

1158. BALLINGER, B. R. and RAMSAY, A. C. **Accidents and drug treatment in a psychiatric hospital.** *British Journal of Psychiatry*, London, 1975, May, vol. 126, pp. 462-463.

A retrospective survey of all accidents in a 625-bed psychiatric hospital revealed that of 351 accidents, 236 were falls and 280 occurred in the ward setting. Female patients were involved in 77 per cent, and patients with organic psychoses in 48 per cent. In 277 instances adequate controls were available. Seventy-five per cent of the accident patients had received a psychotropic drug on the day of the accident as opposed to 61 per cent of patients in a control group. The possibility that the side-effects of psychotropic drugs may have contributed to some of the accidents is discussed.

FIRES AND FIRE PREVENTION

1159. Sjukhusbränder. **[Hospital fires.]** *Sjukhuset*, Göteborg, 1975, vol. 52, no. 4, pp. 191, 193-195, 197-198.

Two recent fires in Swedish hospitals highlight the dangers of carelessness. In Gefle Hospital a fire in rubbish bags, although limited in extent, evolved great heat and large amounts of smoke, and required evacuation of a whole building. The enquiry revealed that the chief fire officer's recommendations had been set aside for reasons of economy. At St. Erik's Hospital, Stockholm, a fire in a senile patient's bedding resulted in a panic and fire in which six patients died (one from jumping out of a window) and seven were

injured. In 1971 a fatal explosive fire in a mattress resulted in a decision to purchase fire-resistant mattresses in future. Building up an efficient fire protection superstructure in buildings of all ages spread over a whole county takes time and is very expensive: provision of smoke detectors for Stockholm County alone would cost s.kr. 15 to 20 million (£2 million). Spot checks revealed a large number of serious breaches of fire regulations and normal common sense: fire alarms blocked by trolleys, fire exits blocked by acetylene gas cylinders, and fire doors jammed open by inflammable rubbish, etc. Training, and thought on the part of staff, can save lives and money. The paper is illustrated by photographs of some of the milder breaches of regulations discovered, and of the results of fires on wards.

THE PATIENT

WELFARE OF THE PATIENT

See also Abstract Nos. 1148, 1181, 1193, 1197, 1198, 1218

1160. BRYANT, R. J. S. and DONALD, B. L. **Interviewing someone with a complaint.** *Hospital and Health Services Review*, London, 1975, June, vol. 71, no. 6, pp. 189-191.

This paper gives guidance in conducting an interview with a complainant. It should be made easy for the complainant to deliver the complaint to someone who has the authority to deal with it. The performance of the officer handling the complaint can be improved if he consciously adopts a 'supportive' interviewing role. The principle of this is that the form of interview must be built around the needs or state of mind of the person being interviewed. A distinction is drawn between 'supportive' and 'defensive' attitudes in interviewers. The interviewer should not object to (and in some ways may wish to encourage) the presence of a 'friend'. He may find it prudent to call in one of his own in case of any subsequent dispute about what has been said. The first interview arising from a complaint is likely to be inconclusive, but it should nevertheless finish on a positive note. The essence of a successful interview is the attainment of rapport between the parties.

VOLUNTARY SERVICE, VOLUNTARY WORKERS

See Abstract Nos. 1214, 1217

HOSPITAL CARE

See also Abstract Nos. 1181, 1194-1196, 1199, 1215, 1219

1161. GREBEN, S. E. and others. **Patient care conference means communication.** *Dimensions in Health Service*, Toronto, 1975, April, vol. 52, no. 4, pp. 45-47.

At the 438-bed Mount Sinai Hospital, University of Toronto, a system of ward conferences has been developed. These take the form of weekly meetings, normally chaired by the ward sister, at which the care of individual patients is discussed by

nurses, psychiatrist, social workers and housemen with visiting medical staff attending on occasion. These meetings have led to better understanding and staff have been able to air their views before members of other professions: they have developed the team spirit and have helped with the training of medical students.

1162. KETEFIAN, S. **Application of selected nursing research findings into nursing practice: a pilot study.** *Nursing Research*, New York, 1975, March/April, vol. 24, no. 2, pp. 89-92.

The value of research to the nursing profession is now recognized and the amount has increased considerably. A study involving 87 registered nurses in the states of Massachusetts and New York was made to determine how much one research finding, concerning the taking of patients' temperature orally, had affected current nursing practice. Questionnaires answered by each nurse were analysed to test various hypotheses concerning this particular research finding, which was widely reported in research literature. Results showed that none of the hypotheses could be supported, and it was concluded that practising nurses are either unaware of relevant research literature, or if they are aware of it they seem unable to relate it to their nursing practice. There were discrepancies between what the nurses thought was the best method for recording temperature accurately, and what they did in practice.

1163. ADAY, L. A. and ANDERSEN, R. **Development of indices of access to medical care.** Ann Arbor, Mich., Health Administration Press, 1975, xviii, 306pp. $7.50.

There is increasing concern that access to the medical care system should be improved. Many programmes have been launched with the expressed objective of improving equity of access in the United States, but few attempts have been made to provide formalized conceptual or empirical definitions of access that permit policy makers and consumers to actually monitor the effectiveness of various programmes in meeting this goal. The purpose of this report is to correct some of these deficiencies. The book is in five parts: a framework for the study of access to medical care; process and outcome indicators of access; methodological notes; review of the literature; selected abstracts and an evaluation of data sources. A list of 432 references to the literature is included.

1164. LANGMAACK, H. Semistationäre Behandlung von Patienten—eine Entlastung des Krankenhauses? **[Does semi-ambulant treatment of patients relieve the hospital?]** *Krankenhaus Umschau*, Kulmbach, 1975, April, vol. 44, no. 4, pp. 189-190.

Although it has been estimated that 30 per cent of patients in acute beds in Western Germany do not need full in-patient care, very little has been done to assess the value of 'semi-ambulant' care, where patients stay in hostels. An experiment has however been undertaken by a 263-bed accident hospital in Hamburg. Patients who no longer need in-patient treatment but live too far away to attend from home are accommodated in a boarding house seven km. away from the hospital. They attend the hospital daily for as long as is necessary for treatment and rehabilitation and have their meals there. Up to 10 patients are 'boarded out' in this way and the hospital pays a fixed sum to the proprietor per patient-day. Although this does not lessen the work at the hospital, in

fact it increases it since extra out-patients are attending, it means that cost-intensive beds are freed for patients who need them, that the patients' transition to normal life is made easier, and that length of stay is considerably reduced.

1165. DYER, E. D., MONSON, M. A. and COPE, M. J. **Increasing the quality of patient care through performance counseling and written goal setting.** *Nursing Research*, New York, 1975, March/April, vol. 24, no. 2, pp. 138-144.

The study described was designed to test the effect of a specified counselling and management protocol on the quality of patient care in seven Veterans Administration hospitals. The following hypotheses were tested: (i) use of a specified counselling protocol will increase level of patient care; (ii) use of such a protocol will increase the personal satisfaction of the nurse as she progresses towards her career goals; and (iii) high quality patient care is related to a positive ward psychological atmosphere. Two groups of nurses were compared: (i) those who used participative management by written objectives and whose head nurses were counselled and who thus provided support for the written objectives; and (ii) a control group who followed their usual practices. Results showed that use of a specified counselling protocol could change the quality of care, but not over a sustained period of time; hypothesis (i) was rejected therefore since the change in favour of the experimental group was not sustained. Analysis of personal satisfaction showed that experimental nurses made more positive statements than the control group after both six and twelve months, except that they felt discouraged after their counselling sessions. Consequently hypothesis (ii) was accepted. Hypothesis (iii) was also accepted, as analysis showed that patient care scores and nurse satisfaction scores were directly related: nurses who received high patient care scores described the hospital atmosphere in more positive terms. This study shows that objective management can increase the quality of patient care.

1166. PELLEY, G. **One step toward quality assurance.** *Hospitals*, Chicago, 1975, April 16, vol. 49, no. 8, pp. 77-78, 82.

The nursing audit system adopted at Hinsdale (Ill.) Sanitarium and Hospital is described. A simple one-page form lists 19 factors which are assessed once a month on each unit during the day or evening shift. Audits are conducted by the team leader, the nursing assistant and the sisters. The information obtained is used to revise the nursing care plan either during or immediately following the audits. The audit includes an interview with the patient.

1167. WANDELT, M. A. and AGER, J. W. **Quality patient care scale.** New York, Appleton-Century-Crofts, 1974, xvi, 82pp. £3.60.

Qualpacs (quality patient care scale) measures the quality of nursing care received by patients in any setting where nurse-patient interactions occur. It is a scale of 68 items in six sections; psychosocial - individual; psychosocial - group; physical; general; communication; and professional implications. The standard of measurement is 'care expected of a first-level staff nurse'. This booklet is in three parts: (i) the form used in preparing the scale; (ii) the cues used with each of the 68 items in the scale; and (iii) guidelines for using the scale.

1168. WALLACE, R. F. and DONNELLY, M. **Computing quality assurance costs.** *Hospital Progress*, St. Louis, 1975, May, vol. 56, no. 5, pp. 53-57.

The 556-bed Little Company of Mary Hospital, Evergreen Park, Ill., has attempted to provide better patient care and to improve its methods of measuring its quality by establishing medical audit, utilization review and nursing audit programmes. This paper describes each of these programmes and calculates their cost. The costs per patient day are: medical audit, $0.31; utilization review, $0.43; and nursing audit, $0.18. The total annual cost to the hospital is $147,000. It is difficult to determine whether this cost is completely justified, but some facts tend to confirm the value of the programmes. These include: lower average length of stay; lower Medicare denial rate; and development of in-service education programmes which directly benefit patients.

DISCHARGE OF PATIENTS

See Abstract No. 1177

HOME CARE, AFTER-CARE

See Abstract No. 1216

SPECIAL DEPARTMENTS

WARDS

See Abstract Nos. 1091, 1174

OPERATING SUITES

1169. PHILLIPS, K. T. **Operating room utilization.** *Hospital Topics*, Neptune, N.J., 1975, March/April, vol. 53, no. 2, pp. 42, 44-45.

The theatre supervisor at St. Barnabas Medical Center, Livingston, N.J., describes the records which are kept to control the use of theatres. A daily form gives actual starting times for anaesthesia, prep, skin incision, and finish as well as recording reasons for delay. A study has shown that use of theatres ranged from 74 to 88 per cent on a daily basis: use by theatre ranged from 68.5 to 96.2 per cent. It was found that, on average, surgeons asked for four per cent more time than they actually took. The daily records for each theatre are studied next day by the supervisor and any unnecessary or lengthy delays are discussed with the staff concerned.

PHARMACY

See also Abstract Nos. 1078, 1096

1170. STOLAR, M. H. and TOUSIGNAUT, D. R. **New HAS measurement system proposed.** *Hospitals*, Chicago, 1975, March 16, vol. 49, no. 6, pp. 131-132, 134-135.

This paper describes the preliminary field tests of a new system for measuring hospital pharmacy activities, revenues, costs and productivity, based on the Hospital Administrative Service (HAS) programmes, developed jointly by the American Society of Hospital Pharmacists and the American Hospital Association. The tests were carried out by nine hospitals of varying sizes, types and drug distribution methods. The system: (i) measures non-revenue producing pharmacy activities such as drug information and research, inventory control and drug purchasing; (ii) records numbers of prescriptions, unit doses, etc., in terms of pharmacy product units (PPUs); and (iii) estimates the hospital work load by calculation of adjusted patient days (APDs) including both out- and in-patients. Three examples included in the paper show: the monthly man-hour record used to estimate the number of hours expended on non-product-related professional activities; the quarterly data report providing all the data required for the proposed system; and the indicator worksheet used to calculate the pharmacy's statistical indicators. The revised system omits the detailed man-hour records and has 10 statistical indicators covering productivity, pharmacy cost and revenue and inventory management.

1171. ROSENBLUTH, S. A. and CRIPPS, G. W. **The pharmacy college as a pharmacy service 'corporation'.** *American Journal of Hospital Pharmacy*, Washington, 1975, April, vol. 32, no. 4, pp. 385-388.

In 1968 the College of Pharmacy of the University of Tennessee entered into a contract to provide pharmaceutical services to the City of Memphis Hospital. Since then similar agreements have been made to provide services to five hospitals, three mental health centres, a cancer clinic and a primary care centre. In this paper the authors describe the working relationships between the College and the hospital or other facility and list 11 items usually included in the service agreements. Benefits of the scheme include: the creation and development of advanced drug distribution systems and clinical services; the development of secure positions for faculty members who are primarily engaged in clinical practice; the availability of the college's resources to the health care facilities; training and employment opportunities for students; and goodwill arising from an efficient service.

1172. HUNTER, R. B. and OSTERBERGER, D. J. **Role of the pharmacist in an allergy clinic.** *American Journal of Hospital Pharmacy*, Washington, 1975, April, vol. 32, no. 4, pp. 392-395.

In December 1973 the head of the adult allergy clinic of Cincinnati General Hospital asked for the expertise of the pharmacy to be available in the clinic. It was thought that a pharmacist could play a role in five main areas; (i) control of allergenic extracts; (ii) new patient procedures; (iii) allergy testing procedures; (iv) community health clinic referrals; and (v) patient consultation. The role of the pharmacists in these

fields is described and the necessary qualifications of a pharmacist in an allergy clinic are set out. Pharmacy residents are assigned to the clinic on a rotating basis.

1173. OTCHY, J. C. **Development and use of an emergency kit for the hospital.** *Journal of the American Pharmaceutical Association*, Washington, 1975, May, vol. NS15, no. 5, pp. 254-257.

At the Walson Army Hospital, Fort Dix, N.J., the emergency drug kit initially prepared and located in the out-patient and casualty departments and certain other clinics has proved so popular that the pharmacy now supplies one to every ward and clinic. The use guide, set out in tabular form, lists 26 drugs and shows form of supply, dosage and administration, emergency uses, action and side effects of each. A list is also given of items other than drugs (needles, syringes, etc.) included in the kit.

1174. NAISMITH, N. W. **Cost effectiveness of a ward pharmacist.** *Australian Journal of Hospital Pharmacy*, Prahran, 1974, vol. 4, no. 4, pp. 161-167.

Development of clinical pharmacy services at the Royal Melbourne Hospital has reached the stage where one pharmacist is totally responsible for the supply of drugs to three wards (two medical, one surgical) with a total of 92 beds. The system is described and the duties of the pharmacist are outlined. A cost effectiveness study of the system showed that it is only marginally less expensive than the previous system, but it has resulted in a reduction of the overall drug cost. It is believed that extension of the system to the whole hospital may result in an increase of hospital costs because of the extension of pharmacist cover and the improved quality of service. The non-economic benefits must also be considered: (i) more efficient use of the professional skills of both nurse and pharmacist; (ii) the image of pharmacy is enhanced because an attempt is being made to solve mutual problems; and (iii) greater control of the drug inventory.

1175. STOCKLEY, I. H. **A pocket aide-memoire on drug interactions.** *American Journal of Hospital Pharmacy*, Washington, 1975, April, vol. 32, no. 4, pp. 395-397

A slide rule which shows the interaction of one drug on another is described. It is intended as a convenient ready reference tool for doctors, pharmacists and nurses but, because its small size limits the amount of information which can be included, it must be supplemented by a standard reference book. Colour-coded symbols on the device indicate both the type and clinical significance of the potential interactions involving 56 drugs or groups of drugs. The code consists of six symbols to describe the interaction and three colours to indicate their clinical importance. The darker the colour the more serious the interaction. In order to make the slide rule pocket size, half the information is contained on one side and half on the other. More than 1,500 interaction questions can be answered by it. Figures in the text illustrate the slide rule and a complementary wall chart which contains the same information as the slide.

1176. TATRO, D. S. and others. **Online drug interaction surveillance.** *American Journal of Hospital Pharmacy*, Washington, 1975, April, vol. 32, no. 4, pp. 417-420.

An on-line computer-based system called MEDIPHOR (Monitoring and Evaluation of Drug Interactions by a Pharmacy-Oriented Reporting System) has been in use at Stanford University Medical Center since May 1973. It monitors drug usage pro-

spectively and warns doctors, pharmacists and nurses of possible significant drug interactions in hospital patients. The system uses a Digital Equipment Corporation PDP-11 computer programmed in MUMPS (Massachusetts General Hospital Utility Multi-Programming System). Special programs have been written to meet the various situations and a side line of the system is the production of prescription labels and patient drug profiles for the pharmacy. A master list of over 4,000 drugs dispensed by the pharmacy was compiled and entered into the computer. Drugs are indexed by their trade and non-proprietary names. Drug interaction information can be quickly retrieved and the system is useful as a teaching instrument for doctors and pharmacists. Each report provides information regarding the pharmacological effect and mechanism of the interactions as well as statements involving clinical findings associated with them.

1177. RYAN, P. B., JOHNSON, C. A. and RAPP, R. P. **Economic justification of pharmacist involvement in patient medication consultation.** *American Journal of Hospital Pharmacy*, Washington, 1975, April, vol. 32, no. 4, pp. 389-392.

A discharge medication interview programme was instituted at a university hospital in Kentucky. It covered two surgical units composed of 120 beds. A pharmacist was made available from 0800 to 2000 on week-days and from 0900 to 1300 at week-ends. The pharmacist reviews the patient's chart on discharge to determine known drug allergies, instructs the patient in the proper use and storage of his medicines, informs him of any possible side effects and ensures that he will be able to acquire the drugs prescribed. Pertinent information from each interview is recorded on a discharge medication summary form. One thousand patients were interviewed regarding discharge prescriptions between June 1973 to February 1974. Interviews lasted an average of 11.2 minutes but there was a saving of $9.13 to the patient per hour of pharmacist's consultation time. Costs were reduced by: (i) substituting less expensive drugs where possible; (ii) relabelling medicines being taken as an in-patient; (iii) securing third-party coverage for eligible patients; and (iv) recommending the purchase of non-prescription drugs over the counter. It is suggested that such a scheme could result in even greater financial advantages to patients from medical units because of the greater number of drugs prescribed.

LABORATORIES

1178. OSTRANDER, L. E. **A data communication system for interactive linking in remote computer and laboratory.** *Medical Instrumentation*, Arlington, Va., 1975, May/June, vol. 9, no. 3, pp. 147-148.

An on-line computer-based system, used for transmitting data on gas transport in tissues and in the lung, is described. Information transmitted at a rate of five samples per second required a single telephone line. The system chosen provides consecutive input from either the data acquisition equipment or the TTY. When either is idle the other may send signals. The system also allows simultaneous transmission of signals from the computer to the laboratory TTY (full duplex operation). The hardware and software is described.

BLOOD TRANSFUSION DEPARTMENT

See Abstract No. 1207

DIAGNOSTIC X-RAY DEPARTMENT

See also Abstract Nos. 1079, 1097

1179. DRUMMOND, A. **Refresher course for radiographers.** *Radiography*, London, 1975, May, vol. 41, no. 485, pp. 122-123.

The difficulty in re-absorbing qualified radiographers into a busy diagnostic X-ray department when they had been away from the profession for some while led the author to prepare a refresher course for them. This created widespread interest and necessitated a further course later in the year. Only eight candidates could take part owing to the need to absorb them into the department for practical work. The aims of the course were: (i) to encourage radiographers to return to the profession; (ii) to refresh their basic knowledge; (iii) to acquaint them with recent technological advances; and (iv) to give them confidence to return to radiology. Feedback was obtained by having the last session as an open forum and issuing candidates with a questionnaire which sought their views on various aspects of the course. A table in the text shows the programme for the six-week course. Two seminars consisting of three sections (theory; practical work in the department; and radiological aspects) proved popular. It was felt that more time might be spent on these in future courses.

RADIOISOTOPE DEPARTMENT

1180. REINKE, D. B. and others. **Data storage and retrieval system for a nuclear medicine department.** *Journal of Nuclear Medicine*, New York, 1975, April, vol. 16, no. 4, pp. 275-279.

A mark sense IBM data card was designed specifically for a nuclear medicine department. The data card functions as a flow sheet with coded information added in sequence by secretary, technician and physician. Statistical information, patient identification, quantitative results, physician's interpretation and discharge diagnosis can be easily coded and entered on the card by the appropriate individual. The completed card can be punched, filed and retrieved by machine. Filing and retrieving can also be done by hand for flexibility. The stored data can easily be programmed and converted to computer handling and storage. The card is inexpensive to produce. Card design is extremely flexible for varying needs. A sample card is reproduced.

REHABILITATION

1181. GOODELL, G. E. **Family involved in patient's care.** *Hospitals*, Chicago, 1975, March 16, vol. 49, no. 6, pp. 96-98.

Since 1965 a family-based rehabilitation programme has been operated by Weber County Hospital, Roy, Utah. All hospital rehabilitation staff are given practical instruction in the physical problems likely to face patients in daily home life. Nurses, physiotherapists and occupational therapists assist patients in regaining muscular control and in some cases in resuming work connected with their previous occupations. Rehabilitation techniques are assisted by the inclusion on the patients' medical charts

of notes on their family and home backgrounds provided by the patients themselves. Instruction and advice is given to the family on medical and psychological factors in the return of the patient to home life. The hospital sponsors social and religious activities for patients and families and also an annual education seminar for all families having to care for stroke patients. For elderly patients, whose families are unable to accept home care responsibilities, the hospital often provides accommodation in its 40-bed self-care unit catering for patients who can function well but cannot live alone at home.

DEPARTMENTS FOR SPECIAL THERAPY

See also Abstract Nos. 1093, 1172, 1200

1182. DOMBEY, S. L., SAGAR, D. and KNAPP, M. S. **Chronic renal failure in Nottingham and requirements for dialysis and transplant facilities.** *British Medical Journal*, London, 1975, May 31, vol. ii, pp. 484-485.

Treatment of chronic renal failure requires expensive facilities which are still not available to all patients dying of it. To plan these facilities accurately recent information is needed on the number of patients requiring treatment in the area in question. This paper reports a retrospective study of uraemic patients covering 12 months in 1970 and a prospective survey covering six months in 1973-74 in a population of almost ¾ million. The number of patients requiring regular dialysis treatment or transplantation or both is considered to be 45 per million of population under 65, 39 per million under 60, and 29 per million under 50 years of age.

1183. BUXTON, M. J. and WEST, R. R. **Cost-benefit analysis of long-term haemodialysis for chronic renal failure.** *British Medical Journal*, London, 1975, May 17, vol. ii, pp. 376-379.

A cost-benefit analysis of long-term maintenance haemodialysis indicates that there is a large gulf between the cost of the service and 'economic' benefit. The difference may be considered to represent one estimate of the price society is prepared to pay to maintain life. Using 'best estimates' from available data it was found that the implicit social value of maintaining a patient on haemodialysis is approximately £4,720 a year in hospital and £2,600 at home. The analysis would suggest that society must look carefully at alternative uses for health expenditure before extending indiscriminately to large sections of the population these treatment programmes or others similarly expensive.

INTENSIVE CARE UNITS

See also Abstract Nos. 1150, 1207

1184. WALKER, W. F. and TAYLOR, D. E. M., editors. **Intensive care: proceedings of the Eighth Pfizer International Symposium held in Edinburgh from 15-16 October 1973.** Edinburgh & London, Churchill Livingstone, 1975, [x], 248pp. £9.50.

Among the topics covered in the 21 papers presented at this symposium were: current concepts; the place of the intensive care unit in an integrated health service; the role of the nurse; technical equipment; automation in the management of data;

teaching and educational value of intensive care; research potential; the problem of infection; interaction of men and machines; and affective disturbances in patients. There were also papers on the special problems of intensive care in children, heart surgery, acute renal failure, liver failure, pulmonary insufficiency and respiratory failure.

SPECIAL HOSPITALS AND UNITS

1185. NUFFIELD PROVINCIAL HOSPITALS TRUST. **Specialized futures: essays in honour of Sir George Godber GCB.** London, Oxford University Press, 1975, xiv, 295pp. £6.00.

As a tribute to Sir George Godber, Chief Medical Officer of the Department of Health and Social Security from 1960 to 1973, the Trustees invited him to nominate a number of younger doctors who would be commissioned to write essays in which they would be asked to look ahead in their particular specialty and to speculate about its place within the National Health Service. The essays are on: orthopaedics; community medicine; hospital practice; chest services; services for the elderly; psychiatry; surgery; general practice; obstetrics and gynaecology; and epidemiology, health and health services.

OUT-PATIENT

See Abstract Nos. 1080, 1196, 1202

CASUALTY AND ACCIDENT

See also Abstract Nos. 1118, 1164, 1221

1186. WALKER, L. L. **The emergency department—entry point into the health care system.** *Journal of the American College of Emergency Physicians*, East Lansing, Mich., 1975, March/April, vol. 4, no. 2, pp. 129-132.

The hospital's emergency service is often viewed by administrative staff as an expensive, separate department with minimal interaction with the rest of the hospital. General practitioners (GPs) may view the service as competition, and only rarely as an alternative method of entering the health care system. A two-month study was made to determine the emergency department's role as a health care entry point in a community general hospital, both to show its effects as a referral source of hospital in-patients and its effect on community medical practice. This involved interviewing 662 emergency patients (44 per cent of all emergency cases) and 786 in-patients (100 per cent) at the South Community Hospital, Oklahoma City. Results showed that the department was not competing with GPs, since patients only used the facility when their GP was unobtainable, or when they felt that their condition was beyond his normal scope. Many used the facility at the direction of their GP. The emergency department also appears to be a major source of in-patients, and so refutes the claim by some administrators that the service is expensive because it does not recover sufficient revenue to offset deficits. Six tables present statistical findings of the survey.

1187. FLASHNER, B. A. **State government in emergency medical services.** *Journal of the American College of Emergency Physicians*, East Lansing, Mich., 1975, May/June, vol. 4, no. 3, pp. 241-243.

There is general agreement that the goal of emergency medical service in the United States is to provide assistance for people with an urgent need for health care. There are however varying views on the design, implementation and operation of the system. To establish a regional EMS system the participation of state governments is essential although the actual operation of the service will be more local. In Illinois a new health professional who is an expert in trauma-EMS acts as a link between the state and the local communities. Ideally the state would co-ordinate education and training, materials and services for regional systems, leadership, funding, guidelines and standards, technical assistance and stimulation of new initiatives. This would be accomplished by the involvement of the state health agency and the governor of the state and his office. Technical assistance to the regional programmes would include distribution of plans and regulations for the categorizing of hospital facilities and emergency departments; ambulance ordinances; educational and training programmes; health education programmes; certification of medical technicians; medical aspects of traffic safety programmes; research; voluntary blood systems; and the obtaining of organs for transplants. Many state agencies such as those concerned with mental health, transport, the law and welfare can play a significant part in the EMS system.

1188. TELL, R. **Categorization: a community based approach.** *Journal of the American College of Emergency Physicians*, East Lansing, Mich., 1975, March/April, vol. 4, no. 2, pp. 152-155.

Categorization of different facilities for emergency care in the hospitals of an area is necessary if each emergency patient is to receive effective treatment for his particular need. However, categorization has often been omitted from planning since it can result in controversies such as rivalries between hospitals with unequal facilities. In Detroit, the American Medical Association's guidelines were adapted to produce four categories suited to local needs: (i) comprehensive emergency service; (ii) major emergency service; (iii) general emergency service; and (iv) basic emergency service. These four categories represent a decreasing range of facilities, but the hospitals in the area have been made aware that this is not a decreasing scale of effectiveness and an attempt to present value judgements. Consequently, instead of enforcing this categorization by law and by rapidly producing an 'ideal plan' for emergency services, Detroit hospitals are working together in a voluntary planning process which can only achieve its aims gradually but, it is hoped, more effectively. The plan has involved the division of Detroit into four more manageable sub-regions, each of which will need up to two major emergency services, two or three general emergency services, and several basic emergency services. A subregional emergency care subcommittee has been established in each region to implement these proposals. An indirect result of the scheme has been greater communication between hospitals, and particularly between private hospitals and Detroit's public ambulance service.

1189. SARKIN, T. L. **The organisation of an accident service.** *South African Medical Journal*, Cape Town, 1974, Sept. 21, vol. 48, no. 46, pp. 1954-1956.

There are three possible ways of organizing an accident service: (i) retaining the

general principle of a casualty department, but improving its efficiency; (ii) establishing a specialized accident hospital; and (iii) separating the treatment of trauma patients from those with other emergencies and establishing an accident unit completely separate from the casualty department. This paper describes the organization of such a unit at Groote Schuur Hospital, Cape Town, and discusses some of the experience gained there. Basic essentials for the accident unit are: (i) separation of non-trauma from trauma patients; (ii) medical and nursing staff trained and equipped to assess trauma and, when necessary, institute modern resuscitative methods; and (iii) availability on call of staff of all disciplines.

1190. NOBLE, R. A., GORODETZKY, S. and ROBINSON, J. **Nurse practitioner in a university emergency department.** *Journal of the American College of Emergency Physicians*, East Lansing, Mich., 1975, May/June, vol. 4, no. 3, pp. 226-227.

A nurse practitioner is employed in the emergency department of the 546-bed George Washington University Hospital. The department sees over 40,000 patients annually and also trains over 400 staff. The nurse practitioner functions in the minor illness area. Her responsibilities consist primarily of direct patient care and management but include teaching, consultation, administration and team development. She sees about 45 to 50 per cent of patients independently and consults with the intern for the rest as necessary. She provides continuity in the department and is involved in the orientation of medical students as they rotate through it. The response of both the health team and the patients has been enthusiastic. It is not clear whether the role itself or the personality of the nurse practitioner has led to acceptance of the arrangement.

1191. STEELE, R. and others. **Cost of primary health care services in the emergency department and the family physician's office.** *Canadian Medical Association Journal*, Ottawa, 1975, May 3, vol. 112, no. 9, pp. 1096-1098, 1113.

This paper reports a study which attempted to determine the true cost of providing primary health care for non-traumatic conditions in the casualty departments of two hospitals and in the offices of family physicians. Of the 1,117 patients involved in the study, 505 presented at the offices of 15 family physicians, 296 at one casualty department and 316 at the other. Costs were calculated from the charges that would be made against the provincial health services insurance plan and from the system of hospital financing in effect in the province. The average true cost per illness episode was $14.63 in one hospital, $14.20 in the other and $15.90 in the physicians' offices.

1192. PATTERSON, E. **Positive identification in the emergency department.** *Hospitals*, Chicago, 1975, April 16, vol. 49, no. 8, pp. 87-88.

While positive identification of in-patients is recognized as essential it is not always thought necessary to use wristbands to identify patients in casualty departments. The author, however, and he is supported by the American Hospital Association, thinks that such identification is essential and sets out the main reasons for doing so. They include the following: reliance on oral identification is risky; use of wristbands increases patient flow; staff confidence is increased; patients can be readily identified while being transported within the hospital; the wristband helps to protect the patient after he has left the hospital and if he is transferred to a facility outside the hospital. The procedure

used for identifying casualty patients at Mount Sinai Medical Center, Milwaukee, is outlined.

1193. WALKER, L. L. **Traditional vs. contemporary attitudes: how emergency department patients view the health care system.** *Journal of the American College of Emergency Physicians*, East Lansing, Mich., 1975, May/June, vol. 4, no. 3, pp. 211-215.

A study was undertaken in the emergency department of a 200-bed community hospital in Oklahoma City to determine whether the attitudes of users were: (i) traditional—using the department for major injuries or illness only and having a close patient-doctor relationship; or (ii) contemporary—using the department for primary health care. Data were gathered over a 28-day period using a standard structured interview with 542 patients (35 per cent of patients using the department at that time). Figures in the paper show a questionnaire measuring patients' views and their attitudes in relation to the number of emergency department visits, ages of patients and doctor contact before the visit. Results showed that traditional attitudes were held by those who made frequent use of the department, patients sent by their own doctors, and parents with children up to 16 years old. Urgency of condition, sex of the patient, or social class did not affect attitudes significantly. Contrary to expectations it was not confirmed that emergency patients have a traditional attitude and non-emergency patients a contemporary one. It seems possible that patients with traditional attitudes use the department for non-traditional reasons because they have no other point of entry into the health care system.

1194. LANDERS, G. A., WAECKERLE, J. F. and MCNABNEY, W. K. **Observation ward utilization.** *Journal of the American College of Emergency Physicians*, East Lansing, Mich., 1975, March/April, vol. 4, no. 2, pp. 123-125.

An observation ward was opened in March 1973 at the Kansas City Hospital and Medical Center. In order to determine which types of patients used the ward and to establish necessary changes to allow greater efficiency in future, a retrospective study was made of the ward's first 1,000 patients. It has seven beds and is staffed by nurses 24 hours a day. Doctors are either resident emergency staff or are sent on a rota basis from other hospital departments. Patients suitable for observation include those whose injury or illness is connected with acute alcoholism or a self-limiting disease such as a drug overdose, as well as those who need observation due to senility, disability or for their own protection. Observation generally involves general patient care, monitoring of various functions and performing tests; it does not include administering blood, intravenous medicines, or monitoring with chest tubes. Results showed that about three patients per day were seen in the first 10 months; on average 58 per cent were discharged after 16 hours observation. The most common diagnosis was of an overdose of alcohol or other drugs (32.8 per cent). Suspected head injuries accounted for nine per cent of diagnoses and seizures eight per cent; all other diagnoses accounted for less than five per cent of the total. The use of the observation ward was episodic, corresponding mostly to high-risk periods such as week-ends and evenings. The ward is not suitable for those requiring continuous coronary or other specialized care for whom special units are available. The ward should not be over-used due to indecision over placing patients.

1195. WILLEMAIN, T. R. **The status of performance measures for emergency medical services.** *Journal of the American College of Emergency Physicians*, East Lansing, Mich., 1975, March/April, vol. 4, no. 2, pp. 143-151.

The emergency medical services (EMS) system aims to prevent death, disability and suffering in those injured or taken acutely ill; to do this effectively the resources involved must be directed systematically to these ends. This review of the literature surveys the state of performance measurement in EMS, with particular reference to the United States. It illustrates the unsettled state of affairs in the field, reviewing some of the most frequently cited papers on saving victims of car accidents in particular. Performance measures are classified as input, process and outcome. Each measure is analysed, but no single measure or set of measures appears adequate. EMS evaluation appears extremely difficult, particularly when using criteria such as 'salvageable deaths amongst traffic fatalities' to measure efficiency. The conclusion that it is no better for a fatality to occur after the accident, in the emergency care unit, than at the scene of the accident makes the true value of the EMS in many cases uncertain. The claim in many papers that 20 per cent of all traffic deaths could be prevented with better EMS is questionable, particularly in cases such as the Illinois statewide trauma network which has claimed considerable success without convincing documentation. There are 43 references.

DAY HOSPITALS

See Abstract No. 1217

INFECTIOUS DISEASES AND ISOLATION

See Abstract No. 1155

CHILDREN

See also Abstract Nos. 1218, 1220

1196. LEBOW, J. **Evaluation of an outpatient pediatric practice through the use of consumer questionnaires.** *Medical Care*, Philadelphia, 1975, March, vol. 13, no. 3, pp. 250-255.

This paper reports an investigation which was carried out into consumer opinion about care in an out-patient paediatric practice. The purpose was to describe and assess the care given at the centre, to examine the relationship between consumer assessments of care and aspects of care and consumer characteristics, and to explore issues such as favourability of assessment, reliability, and correlation of assessment with length of illness. Parents were given questionnaires directly after a visit to the centre, and a further questionnaire was given a week after the visit to parents accompanying patients receiving throat cultures. Care was judged extremely favourably in both instances. Quality of care measures intercorrelated very highly. No strong relationship was found between length of illness or illness versus its absence and rated quality of care received.

GERIATRICS AND LONG-STAY

See also Abstract Nos. 1081, 1082

1197. PABLO, R. Y. **Assessing patient satisfaction in long-term care institutions.** *Hospital Administration in Canada*, Don Mills, Ont., 1975, March, vol. 17, no. 3, pp. 22-23, 26-29, 31-32.

Expressed satisfaction of patients has been stated as one basis for evaluating an institution's effectiveness in achieving its goals. Patient satisfaction is also increasingly being recognized as an important factor which may enhance the patients' feeling of well-being. A sample of chronically ill patients in a long-stay hospital was interviewed with a questionnaire containing 68 items which assessed their feelings and opinions on a wide range of topics. Six meaningful dimensions of satisfaction could be identified from the questionnaire: (i) overall satisfaction; (ii) adequacy of hospital care; (iii) security; (iv) availability of care; (v) food, bed and activity; and (vi) interpersonal sensitivity of staff. Analysis of the data indicated that these dimensions could serve as criteria for evaluating the efficiency of the patients' total hospital experience.

1198. EARDLEY, A., DAVIS, F. and WAKEFIELD, J. **Health education by chance: the unmet needs of patients in hospital and after.** *International Journal of Health Education*, Geneva, 1975, vol. 18, no. 1, pp. 19-25.

Now that chronic disease has to a large extent replaced acute illness in the more developed countries, patients are more and more faced with the task of living with their ailments or with the results or side effects of treatment. They will have to live the rest of their lives in an ambivalent state which they and others find hard to define as 'sick' or 'well'. They have to adjust to their new situation as do their relatives and friends, and health education is an essential part of this adjustment. The patient needs to know how to minimize discomfort, how to prevent difficulties or cope with them, and how to live as full a life as possible in his new circumstances. A study of colostomy patients revealed the need for a special kind of individual education which is not always easy to achieve in a hospital setting, where communication is often imperfect. Probably a combination of methods will best enable the patient to absorb information: (i) explanatory booklets; (ii) programmed individual learning; (iii) volunteers, especially those in a similar situation to that of the patient; and (iv) specialist units or clinics.

1199. EDMUNDS, R. and SMITH, D. L. **A leap with LIP.** *Canadian Nurse*, Ottawa, 1975, April, vol. 71, no. 4, pp. 25-28.

A life enrichment and activation programme (LEAP) was designed for patients in an extended care hospital. Active physiotherapy, recreational and occupational therapy departments help to meet many patient needs but the leadership to support the goals of these special therapies and to assume the full nursing role in life enrichment and activation comes from the registered nurse. She must be an expert in assessing patient needs and in identifying health potential. LEAP was intended to give support to these elements of the nurse's role. One goal of the programme was to increase the amount of professional nursing attention available to patients. The LEAP nurse offered life enrichment activities to patients who were unable to benefit from recreation and rehabilitation programmes already offered. Once assessment and goal setting had

taken place, nursing care approaches were taught and delegated to non-professional staff, under the continuing supervision of the professional nurse. The programme was funded by a Local Initiatives Program (LIP) grant.

CANCER

See Abstract No. 1083

UROLOGY

See also Abstract Nos. 1093, 1182, 1183

1200. ARBEITSGEMEINSCHAFT FÜR KLINISCHE NEPHROLOGIE. Empfehlungen zur Struktur nephrologischer Abteilungen. **[Recommendations for the structure of urology departments.]** *Krankenhaus Umschau*, Kulmbach, 1975, April, vol. 44, no. 4, pp. 213-214.

In June 1974 the Working Group on Clinical Nephrology issued a revised version of its recommendations on departments for kidney diseases and hypertension. The main points may be summarized as follows. Every university hospital should have such a department with the following facilities: a ward with at least 20 beds and four isolation rooms; a dialysis unit with up to 12 places for chronic haemodialysis, three for acute dialysis, and reception area for transplant and home dialysis patients; facilities for home dialysis training; out-patient clinic; and research laboratory. Other hospitals with more than 200 medical beds should also have a kidney unit on analogous lines and there should be such a unit for every half to one million population. In the case of hospitals with less than 200 medical beds, and where the population already has facilities to meet its needs, only a dialysis unit is needed. Haemodialysis wards should have 10 to 12 sq.m. per patient, exclusive of ancillary rooms. Medical and nursing staff should have had special training and experience. Recommendations are also made for staff complements (medical, nursing and technical) and on costs.

1201. ANSELL, D. and DIXON, E. **Training in urological patient care.** *Nursing Mirror*, London, 1975, June 5, vol. 140, no. 21, pp. 55-56.

The authors, a urology technician and a theatre nurse tutor at Guy's Hospital, London, advocate the setting up in Britain of post-basic courses in urological patient care for technicians and nurses. Such courses have been successfully run in the United States since 1968. Suggestions are made on the syllabus, duration, teaching, allocation of staff and other aspects of such training. The title of 'urology assistant' is suggested for those completing the course.

1202. SCOTT, R. and others. **Urology in a modern health centre.** *British Medical Journal*, London, 1975, May 10, vol. ii, pp. 321-323.

At a health centre in Cumbernauld, a new town between Glasgow and Stirling, a consultant urologist holds one half-day clinic each week and a senior registrar a half-day clinic each fortnight, essentially for return patients. They have full use of available diagnostic facilities including radiology. Attendances at the clinic doubled from 248 in

the first year to 549 in the second. Case records and laboratory request forms are made out at the centre when the patient first attends; the records are removed daily to the main hospital for the completion of documentation and analysis and then returned to the health centre for the patient's next visit. An analysis of work undertaken in the first year is given in the paper. The main advantage to the patients is that they are spared the awkward journey to hospitals in Glasgow. Doctors benefit in that communication between hospital doctors and general practitioners is made easier. Registrars take turns at attending the centre where there is more time to discuss individual patients and they are brought into contact with the general practitioners. There are difficulties in ensuring that hospital records are at the health centre when needed and care has to be taken in transporting specimens to central laboratories.

MATERNITY

See also Abstract Nos. 1095, 1149, 1151

1203. OSTREA, M. and SCHUMAN, H. **The role of the pediatric nurse practitioner in a neonatal unit.** *Journal of Pediatrics*, St. Louis, 1975, April, vol. 86, no. 4, pp. 628-631.

The provision of optimum care for sick newborn babies is sometimes achieved at the expense of normal infants and their mothers. To overcome this problem a paediatric nurse practitioner (PNP) was appointed to be responsible for a nursery at Hutzer Hospital, Detroit. After undergoing a supervised trial period of three months she was placed in charge of patients who had no private paediatrician. Her main responsibilities included: chart rounds and infant rounds; consultation with the physician in charge on the situation in the nursery, medical assessment and management; initial physical examinations; and teaching medical and nursing students the technique for examining a newborn infant. Over 12 months the PNP detected 20 serious problems in the infants and the accuracy of her physical examination was compared with that of the doctor. In 72 per cent of cases the assessment of PNP and doctor was the same and in the remaining 28 per cent differences in diagnosis were minor and related to the timing of the examination. A random selection of mothers whose infants had been under the care of the paediatric resident and the PNP and a similar number of mothers with private paediatricians were interviewed by telephone and it was shown that those under the care of the PNP had received more instruction on infant care. It is concluded that the PNP can play a useful role in a neonatal unit.

1204. SIBOLE, W. **Centralized OBS services.** *Hospital Administration in Canada*, Don Mills, Ont., 1975, April, vol. 17, no. 4, pp. 48, 50.

The reasons for considering centralized maternity services are discussed with reference to a particular case in Western Canada. In this instance, hospital administrators were faced with the three alternative plans: (i) to retain the two separate maternity departments existing in the two major hospitals of the area; (ii) to design one totally centralized unit for both hospitals; and (iii) to retain two general units, but provide one centralized high risk service. Eventually alternative (ii) was selected, after it was demonstrated that total staffing costs for all three schemes only showed a 1.5 per cent deviation. Qualitative assessments rather than financial considerations were

considered more important, and it was felt that a general improvement in service would result from a larger regional obstetrics centre, which would attract more specialist staff. Also, both hospitals were located in a fairly small area within easy reach of the centre. Consequently, individual considerations for each hospital involved, particularly concerning quality of care, must be assessed in decisions of this kind.

1205. BENNETT, M. D. **Influence of health insurance on patterns of care: maternity hospitalization.** *Inquiry*, Chicago, 1975, March, vol. 12, no. 1, pp. 59-66.

In the United States the percentage of hospital births increased from 56 per cent in 1940 to 97 per cent in 1965 and 99.5 per cent in 1968. In contrast home births in the Netherlands accounted for 80 per cent of all births in 1950 and 60 per cent in 1971: the figures show that low infant and maternal mortality rates are not dependent on hospital confinements. Time series analysis of maternity care in the United States shows that changes in insurance coverage can explain the increase in hospital births. The extent of Blue Cross coverage within regions was also found to be an important factor in the use of hospitals by people with identical coverage over all regions. A national insurance programme markedly raises the level of the insurance coverage of individuals: this affects the definition of medical need.

1206. DAVY, S. T. **Human milk banks.** *Nursing Times*, London, 1975, May 15, vol. 71, no. 20, pp. 758-761.

The first part of this paper discusses the need for human milk banks and traces their development in Great Britain. The second part describes the procedures followed by the human milk bank at Sorrento Maternity Hospital, Birmingham. Aspects covered are: recruitment and selection of donors; collection of milk; milk examination; and distribution. The bank has a staff of six: three sisters, a midwife, a registered nurse and a specially trained 'sterile medium' technician. Donors are paid a small amount to try to compensate them for the inconvenience and trouble to them, although they are always very willing to give their milk free. A charge is made to users, but if for any reason payment were not possible the milk would still be provided.

1207. BLANKENSHIP, W. J. and others. **A walking donor program for an intensive care nursery.** *Journal of Pediatrics*, St. Louis, 1975, April, vol. 86, no. 4, pp. 583-585.

Sick newborn babies often need to be given small amounts of blood at frequent intervals. To meet this need at the intensive care unit, Sacramento (Calif.) Medical Center, a walking donor programme was established. Donors were selected from hospital staff willing to be available at all times. They were screened for disease, anaemia, etc., and a bank of about 50 has been maintained. When an infant is admitted to the unit samples of its blood and that of its mother are sent to the laboratory. After determination of blood types a matching donor is found and notified of the probable time and frequency of need. The desired volume of blood is drawn in the nursery. Subsequent mini-transfusions from the same donor can be given without further testing providing the donor does not develop symptoms of infection nor the infant show signs of transfusion reaction. The system has proved satisfactory. It eliminates wastage of blood and donors and reduces the number of infectious agents to which the infant may be exposed.

DENTISTRY

1208. HOWE, G. L. **Dentistry in the National Health Service of the United Kingdom: some thoughts on the Hospital Dental Service.** *International Dental Journal*, Bristol, 1975, June, vol. 25, no. 2, pp. 120-123.

The philosophical basis of the National Health Service is to make health care freely available as a social service to all who need it. This concept has been particularly successful in the hospital service and dentistry has benefited along with other medical specialties from the freedom to prescribe and perform necessary treatment for patients regardless of their ability to pay for it. Before the inception of the service, specialist dental advice and treatment was only available in the few large cities in which dental schools existed, whereas there is now a network of hospitals throughout the country providing this facility. The training of consultants for service in hospitals follows a pattern laid down in consultation with the Royal Colleges of Surgeons, and fellowship in one of these is a prerequisite for appointment as a consultant. Although a medical qualification is not required, competition for a limited number of posts has resulted in it being a desirable attribute for an applicant to possess. At the present there is one consultant orthodontist for each half million of the population and one consultant dental surgeon for each 250,000, though these norms are under review.

PSYCHIATRY

See also Abstract Nos. 1084, 1085, 1107, 1131, 1158

1209. MUSTO, D. F. **Whatever happened to "community mental health"?** *Public Interest*, New York, 1975, no. 39, pp. 53-79.

Developments in the care of the mentally ill in the United States, leading up to the Community Mental Health Centers Act of 1963, are outlined. Under this Act some $225 million of federal money was allocated in the 1960s to the construction and staffing of community mental health centres: by September 1974 591 centres had been agreed of which 443 were in use. The aim was to reduce the state psychiatric hospital population, to make access to mental health care more equal, and to provide a wide range of in-patient, out-patient, day hospital, emergency and educational services. There has recently been considerable criticism of the centres which seem to be primarily directed towards the poor and the young and vary greatly in quality: the National Institute of Mental Health has resisted an evaluation of their performance. The future of mental health services will be determined by the development of national health insurance in the United States.

1210. OSBORNE, O. H. **Issues in achieving effective professional alliances.** *Hospital & Community Psychiatry*, Washington, 1975, April, vol. 26, no. 4, pp. 207-213.

Changes in mental health services over the past 30 years have meant that highly qualified professionals of many kinds have been brought into the field. The settings where they work however are still tied to the medical model—a highly authoritarian structure dominated by the doctor—and this sometimes means that their skills are not fully exploited. A social-action model is suggested in which there is no universally accepted interpersonal hierarchy. More informed distinctions between ascribed status

and achieved status would increase the ability to define the best and most economical contributions of each member of the team. Legislation embodied in the codes of professional practice supports the traditional hierarchy but it is often quite out of date. There is a wide disparity in the salaries of the professions who make up the health care team yet often those with the lowest salaries carry the day-to-day burdens and receive little recognition. The hierarchical system defines the patterns of communication among the professional allies, orders being given or taken according to the hierarchy. Similarly budgets are usually designed and controlled by the highest paid staff. The formulation of good role relationships is an important part of building professional alliances and the development of informed job descriptions is a vital first step towards this. The nursing profession is a good example of under-use of knowledge and skill. Good leadership of the health team is essential to the construction of sound professional alliances.

1211. MERCER, A. D. **A model for nursing cost for long-stay psychiatric wards based on degree of ambulance.** *Hospital and Health Services Review*, London, 1975, June, vol. 71, no. 6, pp. 194-195.

As part of a programme to investigate evaluation methods for mental health services, a cost model was developed to describe the operation of long-stay wards in a psychiatric hospital. The major part of it was a model for the nursing cost of the wards. The data collected consisted of the subjective assessment by the nurse in charge of degree of ambulance of each of the patients according to the scale: (i) fully ambulant; (ii) fully ambulant except for stairs; (iii) partially ambulant (i.e. needs a walking aid); (iv) chair-fast; (v) bedfast; and (vi) on leave. The cost of the nursing staff for each of the wards was obtained by summing the salary costs of the nurses who were assigned to each ward. The model proposed was that costs could be accounted for by the number of patients within each category of ambulance. During the analysis of the survey the proposed model was amended. The final model was found to account for 75 per cent of available variation in ward costs; this is considered ample justification for the model. The study demonstrated that: (i) an operational classification of long-stay psychiatric patients can be achieved; (ii) a very simple technique can be used to assess work load; and (iii) a simple application of the techniques used could be used in planning health services resource allocation.

1212. PAGE, S. **Anachronisms in psychiatric accreditation.** *Dimensions in Health Service*, Toronto, 1975, April, vol. 52, no. 4, pp. 33-35.

While accepting that the accreditation of psychiatric hospitals in Canada, and the methods used to evaluate their performance, have value in improving patient care the author points out that the present system does not cover some very important points. The short visits on which evaluation of services for accreditation is based, and the limited scope of the inspection, do not supply adequate data for assessing the efficiency of a psychiatric hospital. Suggestions are made for a more thorough survey and for the human aspects of patient care to be given more consideration.

1213. LINDLEY, C. J. **Determining differential costs of psychiatric care in a VA hospital.** *Hospital & Community Psychiatry*, Washington, 1975, April, vol. 26, no. 4, pp. 213-218.

The author begins by reviewing previous studies on the cost of hospital care and

39 references are listed. The present study presents hitherto unused methods of evaluating distribution of direct patient care costs and support costs to the various types of ward. The Veteran's Administration (VA) cost accounting system provides specific cost data for VA hospitals by type of bed (medical, surgical and psychiatric). Costs are divided into two main categories: direct patient care and support costs. It is possible to obtain costs per day for the whole system or for individual hospitals. The tasks of the study were: (i) to determine if procedures could be developed for redistributing direct-care costs for patients to the wards; and (ii) the combined support costs for bed sections had to be redistributed separately to each of the major bed sections and then distributed to each ward in the sections. Visits were made to the VA psychiatric hospital at American Lake, Wash., to determine whether more meaningful cost data could be developed for psychiatric medically infirm patients. To find the best way of redistributing personal service costs to each of the seven psychiatric wards interviews were held to determine how professionals spent their time. Three tables in the test give figures for psychiatric costs and their redistribution. The cost data developed are useful to the hospital management because they show how resources are being allocated to various wards. Differential costs can be related to classification of patients and treatment programmes and are a useful factor in evaluation.

1214. GILVARY, K. **Toc H volunteers make their mark.** *Nursing Times*, London, 1975, June 12, vol. 71, no. 24, pp. 944-945.

In 1974, for the fifth successive year, Toc H ran a 10-day Easter project at Barrow Psychiatric Hospital, near Bristol. There were eight volunteers, three of them girls and most of them students in the 19-20 age group. They were accommodated in the nurses' home and meals were provided free in the staff canteen. In addition to work on the wards, mainly with psycho-geriatric patients, they organized minibus outings and a social club. The volunteers were also given the chance to learn more about the various aspects of psychiatric care. Some problems of the scheme and its value to the hospital and the volunteers are discussed.

1215. STREIFEL, J. A., SMITH, P. A. and SAVINO, L. J. **The intensive treatment team: a new way to deliver treatment in a residential psychiatric setting.** *Exchange*, Sacramento, 1975, Jan./April, vol. 3, no. 1, pp. 16-18.

A solution to the problem of providing effective and economical care for the mentally ill is being attempted at Camarillo (Calif.) State Hospital by a roving intensive treatment team. The team consists of a behavioural psychologist and two psychiatric technicians. The rationale and development of the team are outlined and three case studies are presented. Staff meetings and informal discussions during the first month reflected a general enthusiasm for the new approach and a growing belief that several problems common to large residential institutions were being resolved. These problems relate to productivity, the need for specialized treatment, the credibility of treatment programmes and job satisfaction.

1216. COPELAND, H. B. and RESNICK, E. V. **The Tuesday Evening Club: using community resources to treat chronically ill patients.** *Hospital & Community Psychiatry*, Washington, 1975, April, vol. 26, no. 4, pp. 227-230.

The Tuesday Evening Club is a group treatment activity run by the adult out-

patient unit of the mental health centre of Hackensack (N.J.) Hospital in conjunction with an affiliated vocational rehabilitation agency. It attempts to provide positive social experiences for borderline patients and schizophrenic patients in partial remission. Such patients are severely ill and though they do not generally need in-patient care they do need the support provided by a hospital. The programme includes a variety of concrete experiences at which patients can succeed. The club meets for 2½ hours one evening a week. It was opened in October 1971 and by February 1972 had 20 members. The staff consists of a psychiatric social worker, a counsellor from the rehabilitation agency and a supervising psychiatrist. There are also three voluntary helpers. As the programme developed a sequence of phases became apparent: socialization within the group; socialization in the community; and re-entry into the community leading to a separate therapeutic programme established at the YMCA.

1217. MINOR, K. and THOMPSON, P. **Development and evaluation of a training program for volunteers working in day treatment.** *Hospital & Community Psychiatry*, Washington, 1975, March, vol. 26, no. 3, pp. 154-156.

Volunteers have been used for 2½ years to supplement the staff of the Muscle Shoals Mental Health Center, Florence, Ala. The day treatment programme of the Center functions for 6½ hours a day, five days a week. About 130 in-patients and out-patients are served each month. The programme includes activities such as sewing, gardening and handicrafts as well as traditional treatment. When manpower problems arose the local mental health association was asked to form a committee to draw up a plan for the training and use of volunteers. Initially 25 volunteers were selected and trained. They evaluated the course by means of questionnaires immediately after training and after three and six months' service. Most of the volunteers felt that the information given during training sessions prepared them to perform their duties and understand their roles as volunteers. They also felt the orientation session helped acquaint them with the facilities of the Center as a whole. At present 28 volunteers are working on the programme; each works about three hours a week. Factors contributing to the success of the scheme have been the employment of a specific staff member to co-ordinate volunteer services, co-operation with the mental health association, using volunteers in ways that are personally rewarding, offering in-service training and having a system for recognition of volunteers' services.

1218. LYNCH, M., STEINBERG, D. and OUNSTED, C. **Family unit in a children's psychiatric hospital.** *British Medical Journal*, London, 1975, April 19, vol. ii, pp. 127-129.

Park Hospital for Children, Oxford, has been admitting mothers with their children for the past eight years. The mother and baby unit is a modern bungalow with three bedrooms for mothers and communal domestic facilities. There is room for the child and any siblings to stay with their mother or the children may sleep in the main hospital nursery. This paper describes the unit and its staffing, admission and assessment procedures, legal aspects, treatment programme and children's and family diagnoses. It is considered that the unit meets a need in a way that could be difficult or impossible for most paediatric, psychiatric and social services as they are at present organized.

1219. MÜLLER, H.-W. Um die Humanisierung der Psychiatrie: Probleme der stationären Versorgung von psychisch Kranken. **[The humanization of psychiatry: problems of in-patient care of the mentally ill.]** *Krankenhaus*, Stuttgart, 1975, May, vol. 67, no. 5, pp. 157-163.

The long-term objective for humanizing psychiatric services must be to do away with the large, old-fashioned hospitals, situated far from population centres and replace them with psychiatric departments in general hospitals (up to 200 beds) and specialist psychiatric hospitals (with not more than 600 beds) in or near towns. In the short-term however these older hospitals should be modernized and their bed complement reduced. The mentally handicapped should be removed from psychiatric hospitals and as far as possible rehabilitated. Other facilities which should be provided are treatment centres, day and night hospitals, half-way homes, sheltered workshops, and special units for senile patients, alcoholics, drug addicts and those convicted of crimes.

SOCIAL MEDICINE

1220. WOLKENSTEIN, A. S. **Hospital acts on child abuse.** *Hospitals*, Chicago, 1975, March 16, vol. 49, no. 6, pp. 103-104, 106.

A very effective community-based child abuse programme has been developed at the 200-bed Milwaukee Children's Hospital, Wis., since the establishment in 1965 by its medical staff executive committee of an Advisory Committee for the Abused Child, known since 1974 as the Advisory Committee on Child Welfare. In addition to hospital medical and social work staff the committee now includes representatives of the Protective Services of the State Department of Public Welfare, public health and visiting nurse organizations and three community paediatricians. Family medicosocial studies are made in each abuse case and follow-up procedures are planned and carried out through the family doctor, the hospital's newly established Out-patient Child Health Clinic or family counselling programmes ordered by the children's court. Cases are reviewed by the hospital committee after a maximum period of six months to ensure follow-up and continuity of care. Similar programmes, tailored to individual hospital and community requirements, could usefully be adopted in other states or regions.

1221. ROSENBLATT, E. and GREENLAND, C. **Early identification of child abuse.** *Dimensions in Health Service*, Toronto, 1975, May, vol. 52, no. 5, pp. 10-12.

The development of the home accidents and injuries study (HAIS) in Ontario is described. It was undertaken to improve identification of abused children in hospital emergency departments. A specially designed form, printed on brightly coloured paper and known as the HAIS screening card, was issued to emergency and paediatric departments of hospitals. Staff were asked to complete a card for all children injured in home accidents and all children showing evidence of neglect or failure to thrive; those injured in car accidents, school sports and other obvious ways were excluded. Completion of the card was followed by an evaluation of the case by a staff paediatrician in consultation with a hospital social worker. A one-year pilot HAIS scheme was undertaken in three hospitals. It showed: (i) that most hospital emergency departments are poorly organized to deal with the kind of problems presented by families of abused

children; and (ii) the HAIS system provides a suitable mechanism for screening injured children and triggering an investigative routine.

1222. HENRY-NICORA, B. **Hospital provides hypertension screening service.** *Hospitals*, Chicago, 1975, May 1, vol. 49, no. 9, pp. 91-92.

As part of a community health programme, Anaheim (Calif.) Memorial Hospital began a hypertensive screening, referral and education programme to identify hypertensive patients, refer them to a doctor participating in the programme and to provide appropriate health education. The procedure followed is outlined. Of 800 persons screened in the first three weeks 10 per cent were found to have abnormal blood pressure and were referred to physicians and the educational programme

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